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N O R T H

MASSACHUSETTS EXPORTS  
1993

MASSACHUSETTS PORT AUTHORITY



I N T E R N A T I O N A L

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## **ACKNOWLEDGEMENT**

**This abstract of Massachusetts' exports is the result of long hours of work by Susan R. Deacy. Susan works diligently with great enthusiasm to bring to life the numbers and statistics relating to the state's exports. Through graphs, maps, charts and words she tells a story of what is happening to the region's outbound trade. Her hard work makes this story more understandable and more complete each year.**

**She would not have been able to produce this document without a computer program designed by Carla Miller. Each year Carla spends far more than 40 hours each week to improve the program so that information can be accessed quicker and in a more useful manner. Carla is also responsible for editing this document to insure that it is accurate and complete.**

**Both Carla and Susan are employed by a not-for-profit organization called AXES, Inc. AXES falls under the University of Massachusetts Foundation. It is an outgrowth of work started by Stephen P. Coelen and the Massachusetts Institute of Social Research at UMass. Amherst. Stephen remains the guiding light in Massport's efforts to provide businesses with timely trade information.**

**Lastly, none of this abstract would be possible without the raw numbers provided by the U.S. Census Bureau and the U.S. Department of Commerce. They play a very important role in collecting and processing trade information. They should be encouraged to continue and increase this activity by having more and more companies use the data to enhance their foreign sales.**





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# **MASSACHUSETTS', NEW ENGLAND'S AND U.S.' EXPORT GROWTH 1987-1993**

In 1993 Massachusetts exported 12.2 billion dollars of Massachusetts' made products, which is almost half of all exports by dollar volume from New England. Massachusetts' export growth of 0.3% from 1992-93 lagged behind New England and United States' growth. Massachusetts', New England's, and United States' export growth rates have remained positive but have slowed each year since 1987.\*

<b>% GROWTH</b>	<b>MA</b>	<b>NE</b>	<b>US</b>
<b>1988-89</b>	<b>18%</b>	<b>18%</b>	<b>27%</b>
<b>1988-89</b>	<b>8%</b>	<b>13%</b>	<b>12%</b>
<b>1989-90*</b>	<b>10.6%</b>	<b>13%</b>	<b>13%</b>
<b>1990-91</b>	<b>2.6%</b>	<b>5%</b>	<b>7%</b>
<b>1991-92</b>	<b>2.2%</b>	<b>8%</b>	<b>6%</b>
<b>1992-93</b>	<b>0.3%</b>	<b>3%</b>	<b>4%</b>
<b>1987-1993</b>	<b>46%</b>	<b>70%</b>	<b>89%</b>

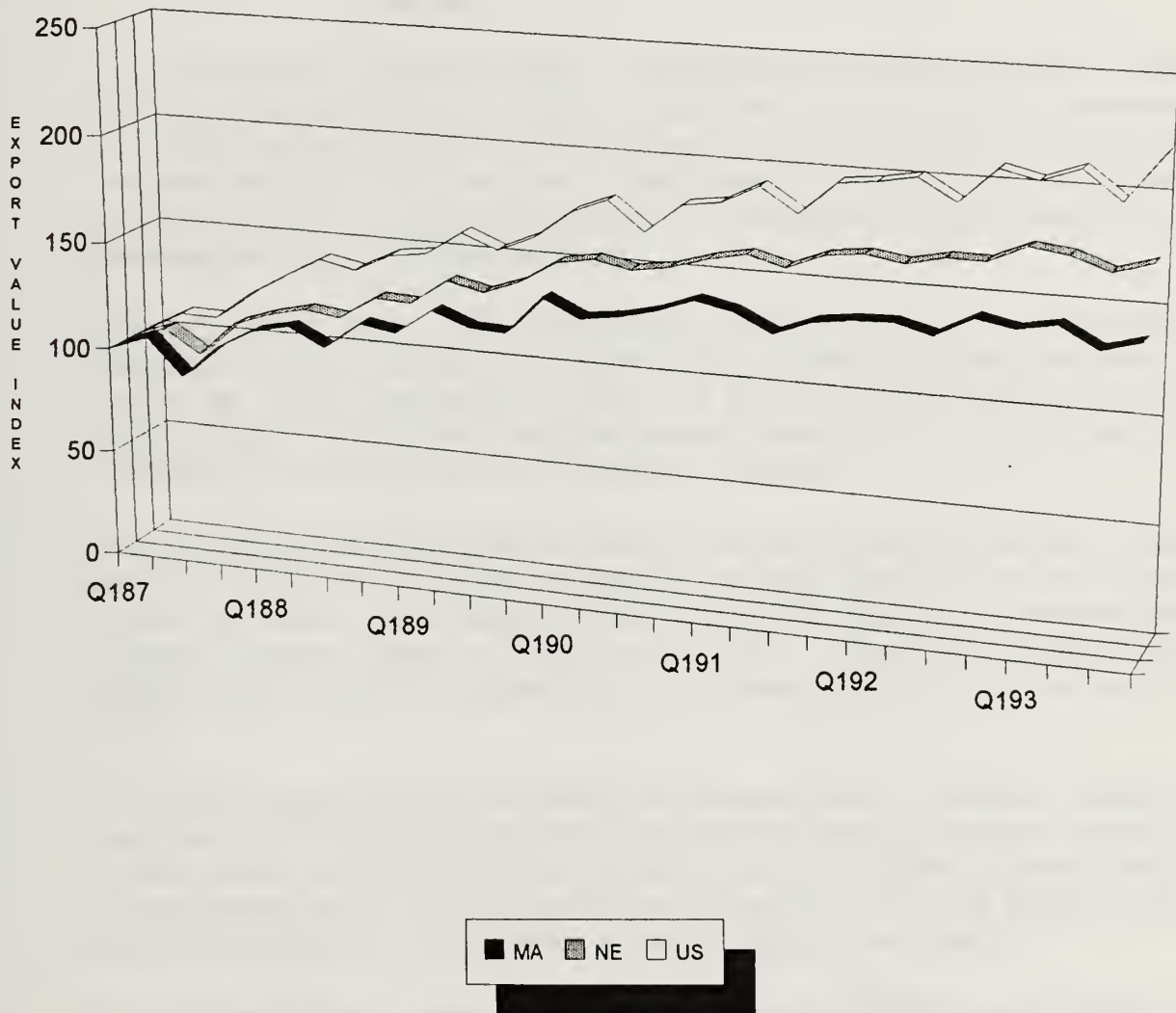
Massachusetts' slow export growth from 1990-93 is largely attributable to decreases in exports of industrial machinery and computer equipment which shrank from 46% (\$4.5 billion) of Massachusetts' exports in 1988 to 32% (\$3.9 billion) in 1993. Other industries more than made up for the loss. Electronic and electric equipment exports increased by \$1.3 billion or 137% from 1988-93, fabricated metal products gained \$441 million or 239%, and exports of instruments gained \$262 million or 16%.

Massachusetts' largest gains by country of destination from 1988 to 1993 in terms of dollar and percent increase, occurred in the Western Hemisphere, Asia, and Europe. Massachusetts' exports more than doubled to Canada, Mexico, Brazil, Argentina, Chile, and Malaysia. Massachusetts' exports to Hong Kong, Korea, Singapore, Philippines, France, and Thailand all increased by over 40%, while exports to Germany expanded by 29%, Netherlands 30%, and France 9%. The following pages explain in what industrial areas and to which countries growth, as well as declines, occurred.

\* 1989-1990 growth rates are overstated due to the beginning of the United States-Canadian statistical exchange. Since 1990 the United States has used Canada's higher and more accurate import statistics to measure United States exports.



**MASSACHUSETTS, NEW ENGLAND AND U.S.  
EXPORT GROWTH 1987-93  
(Q187=100%)**



**TOTAL DOLLAR VALUE IN BILLIONS**

REGIONS	1987	1988	1989	1990	1991	1992	1993
MASSACHUSETTS	8.3	9.7	10.6	11.6	11.9	12.2	12.2
NEW ENGLAND	14.5	17.1	19.3	21.8	22.9	23.8	24.5
UNITED STATES	246.4	312.1	348.1	393	421.9	447.6	465

**GROWTH**

1987-1993
46.16%
70.00%
89.00%





## MASSACHUSETTS' 1993 EXPORT PERFORMANCE

- \* Canada is by far the most important export market for Massachusetts. In 1993 Massachusetts' exports to Canada totaled 2.8 billion dollars (see Table 1). Annual export growth to Canada was strong in 1993 at 8.8%, a significant change after the -1% growth of the previous year. New England and United States' growth to Canada remained strong at 4.6% and 11% respectively.
- \* After Canada, the following countries are Massachusetts' major export markets:
  - Japan
  - United Kingdom
  - Germany
- \* Japan imported 1.15 billion dollars of Massachusetts made products in 1993 which represents a 3.1% increase in shipments since 1992. This reversed the -20.6% growth rate from the previous year. New England's growth rate remained negative at -5% and the United States returned to the positive with a growth rate of 0.4%. Japan moved from third back to second place among Massachusetts export destinations.
- \* United Kingdom imported \$1.05 billion in goods from Massachusetts in 1993. Massachusetts' annual export growth to the United Kingdom continued to decline at -4.9% compared to -2.6% and 15.6% for New England and the United States. The United Kingdom moved from fourth to third among top destinations for Massachusetts products in 1993.
- \* Germany's imports from Massachusetts totaled 969 million dollars in 1993 with a growth rate of -13.6%, a significant drop from the previous year's growth of 8.5%. New England and the United States also experienced negative growth rates of -8.7% and -10.7%. Germany dropped from Massachusetts' second largest country of destination in 1992, to fourth in 1993.
- \* The three largest dollar increases in Massachusetts' exports 1992-1993 occurred in Canada which grew by \$226 million, Hong Kong which increased by \$96 million and Singapore which jumped up \$59 million. Massachusetts' exports expanded by over \$10 million to Japan, China, Israel, Brazil, Turkey, Switzerland, Malaysia, Colombia, Norway, Algeria, and Spain.
- \* The highest annual percentage growth areas for 1993 were Algeria (up 3,739.0% due to strong increases in exports of machinery/computers and electronics), Kazakhstan (up 1,540.0%), Burma (up 1,171.9%), Suriname (up 586.2%), Mongolia (up 543.3%) and Ukraine (up 369.2%). Albania, Angola, Bangladesh, Belarus, Cambodia, Central African Republic, Colombia, Costa Rica, Ecuador, Estonia, Ethiopia, Fiji, Greenland, Iran, Latvia, Lithuania,



**Macao, Namibia, Nepal, Syrian Arab Republic and Zambia also had high percent increases. Table 2 lists the dollar value and percent changes in growth for these countries and all the other ones where Massachusetts exports.**





# TABLE 1 MASSACHUSETTS EXPORTS PERFORMANCE OF ITS TOP MARKETS

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

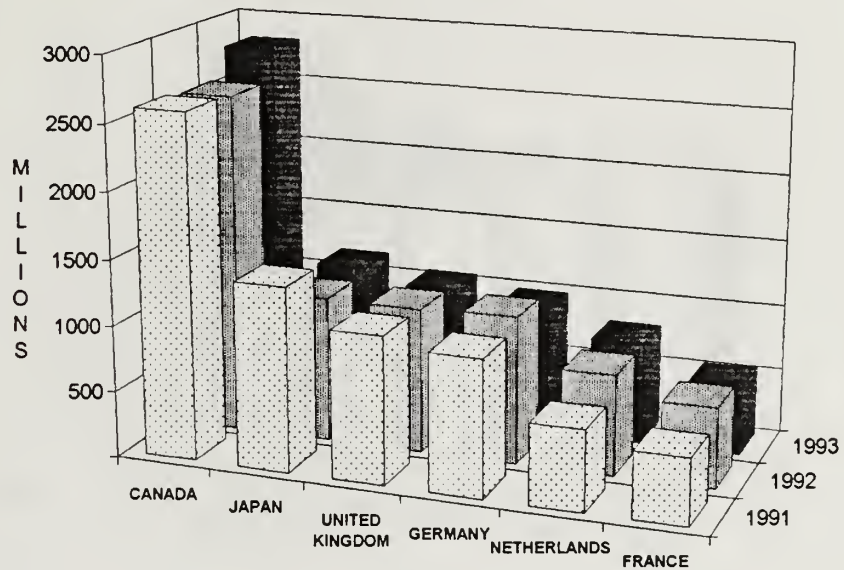
ANNUAL PERCENT GROWTH RATE  
1992-1993

COUNTRIES	1991	1992	1993
CANADA	2,609,498,721	2,580,178,363	2,806,040,914
JAPAN	1,400,633,141	1,111,765,366	1,146,335,414
UNITED KINGDOM	1,113,835,149	1,101,932,853	1,048,214,369
GERMANY	1,033,447,256	1,121,423,532	968,819,344
NETHERLANDS	607,478,269	766,449,548	779,678,477
FRANCE	495,486,691	607,057,834	625,442,528
HONG KONG	241,174,788	304,491,049	400,082,464
KOREA, REPUBLIC	415,450,624	405,321,550	345,144,141
SINGAPORE	272,704,876	268,633,122	327,589,812
IRELAND	289,321,113	324,964,132	310,865,978
AUSTRALIA	338,676,685	322,661,999	309,050,482
TAIWAN	357,674,117	352,830,531	297,707,626
MEXICO	229,828,924	263,984,100	294,930,559
ITALY	319,881,967	347,232,067	269,879,273
ISRAEL	158,491,243	160,872,942	191,229,588
BELGIUM	267,874,369	244,260,681	187,752,622
SWITZERLAND	154,362,049	153,873,877	172,422,714
SPAIN	129,151,134	120,457,133	131,581,081
CHINA	81,162,084	92,247,637	123,336,747
BRAZIL	91,911,812	95,474,772	120,815,207
PHILIPPINES	118,321,475	118,098,120	117,005,170
SWEDEN	101,432,417	100,172,378	101,596,894
MALAYSIA	58,186,163	56,679,921	74,603,090
SAUDI ARABIA	58,233,364	70,257,395	72,315,526

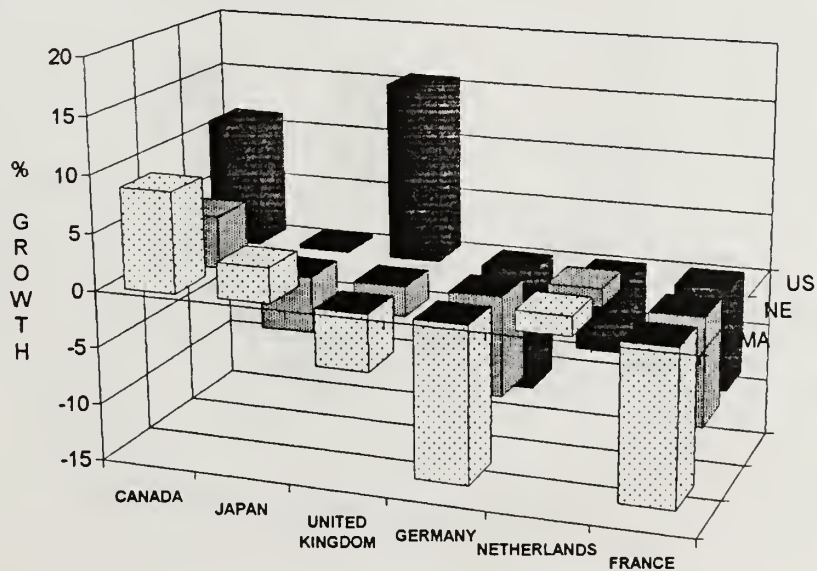
MA	NE	US
8.8	4.6	11.1
3.1	-5	0.4
-4.9	-2.6	15.6
-13.6	-8.7	-10.7
1.7	1.6	-6.6
-13.6	-8.7	-9
31.4	32.1	8.4
-14.8	-16	1
21.9	34.2	21.3
-4.9	1.6	-4.3
-4.2	11.5	-7.2
-15.6	-2.1	8.5
11.7	9.3	8.5
-22.3	-19.9	-10.7
12.1	10.3	8.5
-23.1	-12.4	-9.2
12.1	27.9	50
8.8	-4.3	-23.8
33.7	83.2	17.4
26.5	23.2	5.3
-0.9	-4.4	28.2
1.4	4.2	-17.2
31.6	56.6	38
2.9	17.8	-6.9



**MA EXPORTS: TOP MARKETS  
(RANKED BY THE 1993 TOTAL DOLLAR VALUE)**

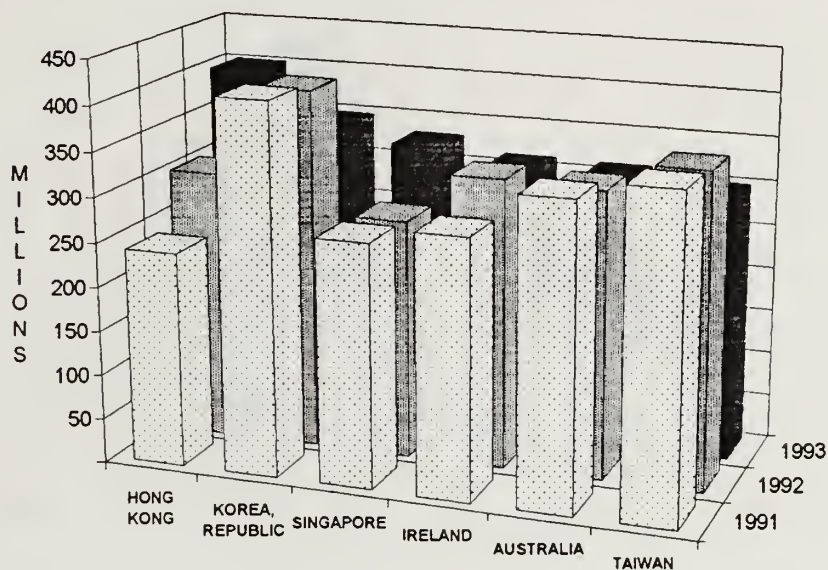


**MA, NE AND U.S. EXPORT GROWTH 1992-93  
MASSACHUSETTS TOP MARKETS**

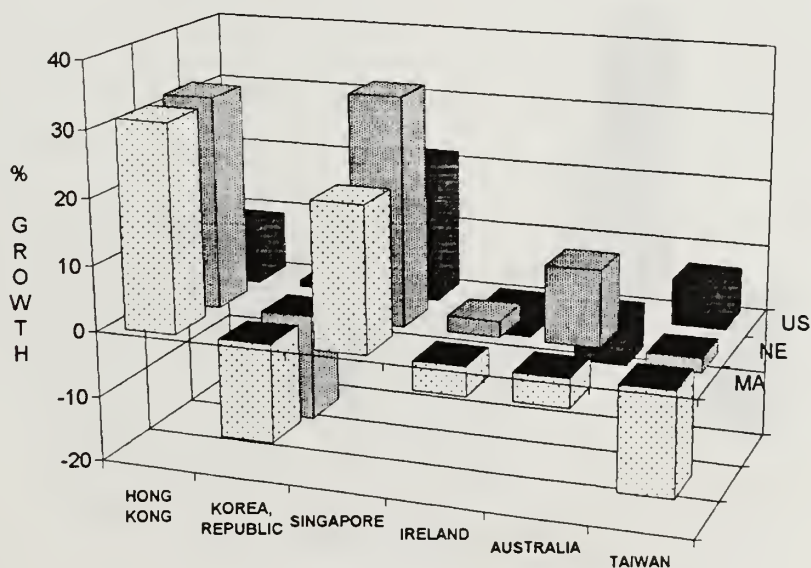




**MA EXPORTS: TOP MARKETS  
(RANKED BY THE 1993 TOTAL DOLLAR VALUE)**



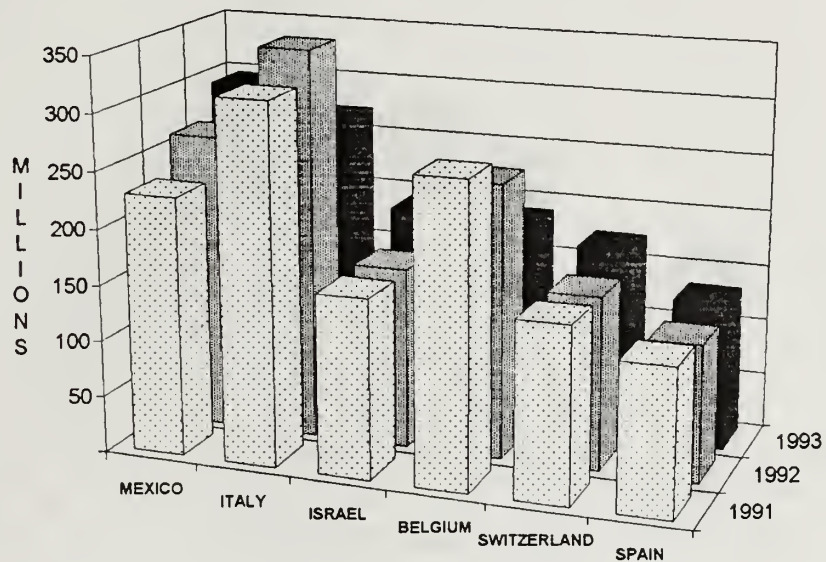
**MA, NE AND U.S. EXPORT GROWTH 1992-93  
MASSACHUSETTS TOP MARKETS**



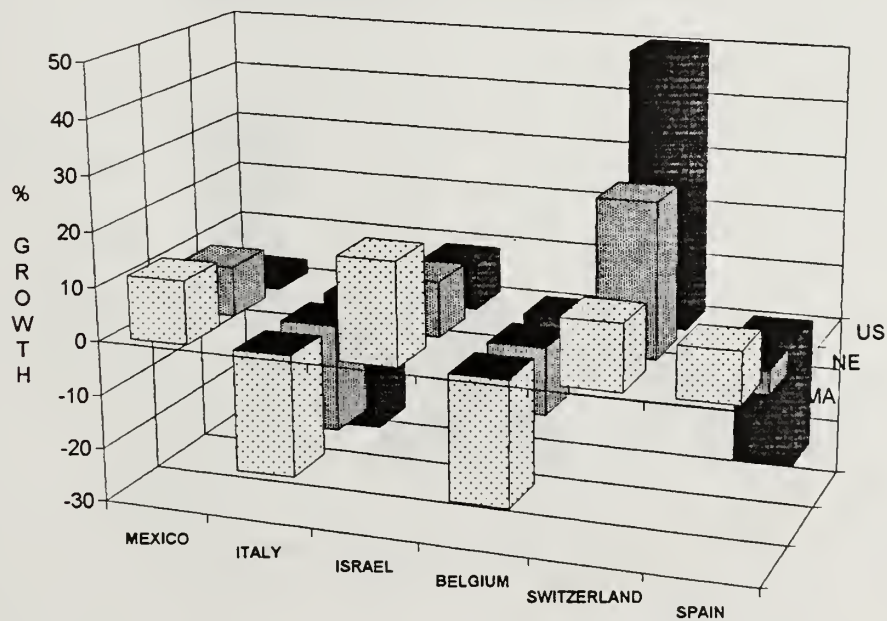




**MA EXPORTS: TOP MARKETS  
(RANKED BY THE 1993 TOTAL DOLLAR VALUE)**

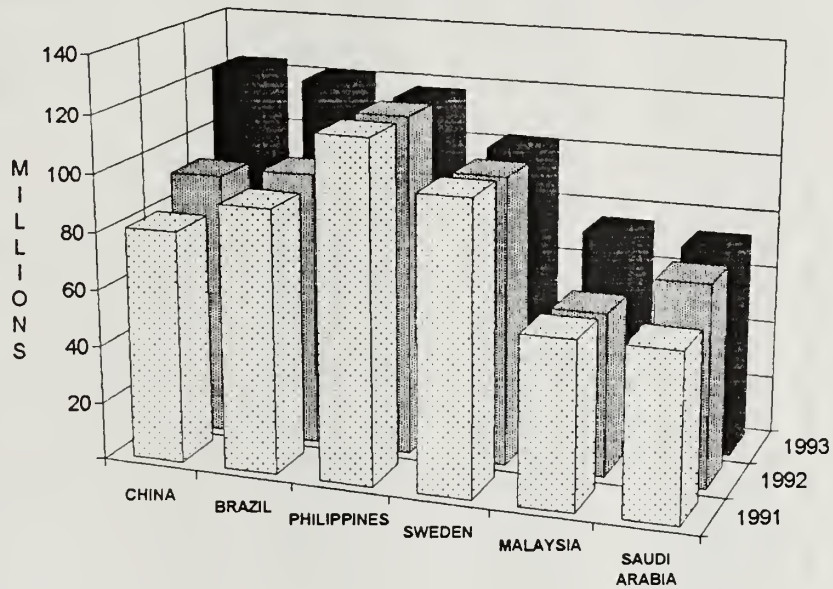


**MA, NE AND U.S. EXPORT GROWTH 1992-93  
MASSACHUSETTS TOP MARKETS**

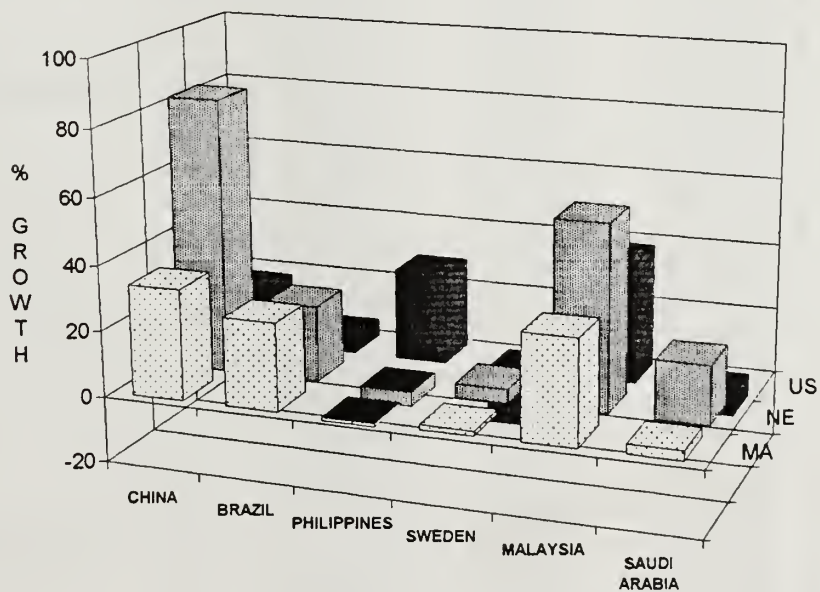




# **MA EXPORTS: TOP MARKETS (RANKED BY THE 1993 TOTAL DOLLAR VALUE)**



## **MA, NE AND U.S. EXPORT GROWTH 1992-93 MASSACHUSETTS TOP MARKETS**







**TABLE 2**  
**MASSACHUSETTS EXPORTS BY COUNTRY**

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT INCREASE  
91-92      92-93

	1991	1992	1993		
TOTAL ALL COUNTRIES	11,891,440,597	12,157,622,399	12,194,841,082	2.24	0.31
CANADA	2,609,498,721	2,580,178,363	2,806,040,914	-1.12	8.76
JAPAN	1,400,633,141	1,111,765,366	1,146,335,414	-20.62	3.11
UNITED KINGDOM	1,113,835,149	1,101,932,853	1,048,214,369	-1.07	-4.87
GERMANY	1,033,447,256	1,121,423,532	968,819,344	8.51	-13.61
NETHERLANDS	607,478,269	766,449,548	779,678,477	26.17	1.73
FRANCE	495,486,691	607,057,834	625,442,528	22.52	-13.44
HONG KONG	241,174,788	304,491,049	400,082,464	26.25	31.39
KOREA, REPUBLIC OF	415,450,624	405,321,550	345,144,141	-2.44	-14.85
SINGAPORE	272,704,876	268,633,122	327,589,812	-1.49	21.95
IRELAND	289,321,113	324,964,132	310,865,978	12.32	-4.34
AUSTRALIA	338,676,685	322,661,999	309,050,482	-4.73	-4.87
TAIWAN	357,674,117	352,830,531	297,707,626	-1.35	-15.62
MEXICO	229,828,924	263,984,100	294,930,559	14.86	11.02
ITALY	319,881,967	347,232,067	269,879,273	8.55	-22.28
ISRAEL	168,491,243	160,872,942	191,229,588	1.50	18.87
BELGIUM	267,874,369	244,250,681	187,752,622	-8.82	-23.13
SWITZERLAND	154,362,049	153,873,877	172,422,714	-0.82	12.05
SPAIN	129,151,134	120,457,133	131,581,081	-4.73	9.23
CHINA	81,162,084	92,247,637	123,336,747	13.66	33.70
BRAZIL	91,911,812	95,474,772	120,815,207	3.88	26.54
PHILIPPINES	118,321,475	118,098,120	117,005,170	-0.19	-0.13
SWEDEN	101,432,417	100,172,378	101,596,894	-1.24	1.42
MALAYSIA	68,186,163	66,679,921	74,603,090	-2.69	31.62
SAUDI ARABIA	68,233,364	70,257,395	72,315,526	20.65	2.93
AUSTRIA	45,578,284	64,541,877	61,973,860	41.61	-3.98
ARGENTINA	34,446,927	52,814,677	61,152,147	53.32	15.79
TURKEY	33,347,112	38,626,496	60,281,703	15.83	56.06
REPUBLIC OF SOUTH AFRICA	53,513,394	49,442,570	59,250,517	-7.61	19.84
THAILAND	54,844,672	55,135,291	55,466,678	0.53	0.60
CHILE	43,428,625	40,943,858	45,456,472	-8.82	11.02
NORWAY	37,253,435	30,812,488	43,571,856	-17.29	41.41
DENMARK	44,881,186	47,444,728	41,916,079	5.79	-11.65
INDIA	48,822,229	46,044,820	40,339,455	-5.69	-12.39
INDONESIA	30,933,512	41,504,635	38,128,905	34.17	-8.13
COLOMBIA	19,356,933	20,757,723	36,722,969	7.24	76.91
VENEZUELA	35,241,702	37,281,239	35,948,622	5.79	-3.57
POLAND	26,510,610	66,017,424	32,583,123	149.02	-50.64
NEW ZEALAND	42,139,541	34,427,801	28,449,764	-18.30	-17.36
FINLAND	24,373,483	27,848,996	26,971,905	14.26	-3.15
PORTUGAL	22,985,131	29,025,158	26,042,502	26.28	-10.28
RUSSIA	0	22,891,295	23,988,904	0.00	4.79
UNITED ARAB EMIRATES	10,942,446	18,703,407	19,824,709	70.93	6.00
BERMUDA	28,052,906	22,947,482	19,132,857	-18.20	-16.62
GREECE	21,131,180	17,823,497	17,248,783	-15.65	-3.22



**TABLE 2**  
**MASSACHUSETTS EXPORTS BY COUNTRY**

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT INCREASE  
91-92      92-93

	1991	1992	1993		
KUWAIT	6,974,860	15,064,603	16,624,573	115.98	10.36
CZECH REPUBLIC	0	0	16,416,819	0.00	0.00
DOMINICAN REPUBLIC	25,030,408	34,895,798	16,378,798	39.41	-63.06
COSTA RICA	8,732,513	10,302,868	10,698,895	17.98	51.78
EGYPT	63,581,504	33,198,083	14,384,076	-38.04	-66.67
ALGERIA	3,243,711	321,004	12,323,483	-90.10	3739.04
GUATEMALA	5,671,266	6,220,556	11,617,739	9.99	85.16
ECUADOR	5,996,744	4,432,591	10,690,895	-26.08	141.19
LEBANON	3,218,943	7,300,513	10,489,955	126.80	43.69
PERU	8,449,015	10,917,855	10,344,331	29.22	-5.25
MALTA AND GOZO	3,525,049	4,460,673	9,219,677	26.54	106.69
PANAMA	9,867,449	7,632,163	9,162,379	-23.67	21.64
HUNGARY	4,744,150	4,984,708	7,364,448	5.07	47.74
MOROCCO	3,948,179	5,122,964	6,466,228	29.76	26.22
JAMAICA	5,363,025	7,334,929	6,186,309	36.77	-15.66
OMAN	2,738,536	5,126,812	5,907,838	87.71	15.23
PAKISTAN	5,653,646	7,760,338	5,582,852	37.09	-27.92
UKRAINE	0	1,165,316	5,468,025	0.00	369.23
SLOVENIA	0	3,267,973	4,697,250	0.00	43.74
NETHERLANDS ANTILLES	3,954,794	2,582,140	4,619,542	-34.71	78.90
LUXEMBOURG	4,167,041	7,543,515	4,414,924	81.03	-41.47
EL SALVADOR	1,670,467	5,578,992	4,133,888	233.98	-25.90
BAHRAIN	1,909,173	3,955,102	4,117,613	107.16	4.11
URUGUAY	2,840,530	2,886,422	4,027,347	1.62	39.53
BAHAMAS	1,767,269	6,339,958	3,947,484	258.74	-37.74
ICELAND	4,248,467	4,812,109	3,511,810	13.27	-27.02
IRAN	4,474,649	1,728,678	3,478,466	-61.37	101.22
NIGERIA	5,829,903	3,273,443	2,935,606	-43.85	-10.32
JORDAN	1,731,903	3,682,694	2,825,355	112.64	-23.28
CAYMAN ISLANDS	1,620,436	1,664,160	2,567,686	2.70	54.29
HONDURAS	1,876,855	2,119,256	2,553,746	12.92	20.50
QATAR	1,443,736	2,709,984	2,340,936	87.71	-13.62
SYRIAN ARAB REPUBLIC	501,976	934,890	2,240,139	86.24	139.62
KAZAKHSTAN	0	132,485	2,172,794	0.00	1540.03
CROATIA	0	1,588,088	2,081,897	0.00	31.09
BARBADOS	1,399,582	1,215,475	1,978,602	-13.15	62.78
HAITI	5,836,323	2,750,634	1,729,807	-52.87	-37.11
FIJI	188,478	626,426	1,684,525	232.36	168.91
SLOVAK REPUBLIC	0	0	1,595,466	0.00	0.00
BURMA	272,485	123,765	1,574,219	-54.58	1171.94
TUNISIA	1,318,850	1,765,156	1,564,346	33.84	-11.38
TRINIDAD AND TOBAGO	3,197,090	2,693,785	1,533,731	-15.74	-43.06
KIRIBATI	1,035,201	1,967,617	1,502,233	90.07	-23.65
SRI LANKA	1,197,545	2,690,589	1,477,501	124.68	-45.09
ROMANIA	1,909,366	1,606,837	1,364,659	-15.84	-15.07





# TABLE 2 MASSACHUSETTS EXPORTS BY COUNTRY

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT INCREASE  
91-92      92-93

	1991	1992	1993		
BULGARIA	1,588,702	1,423,100	1,267,755	-10.42	-10.92
BOLIVIA	1,254,030	671,838	1,216,280	-46.43	81.04
ARUBA	2,444,141	1,284,644	1,165,108	-47.44	-9.30
PARAGUAY	903,211	875,273	1,155,333	0.00	32.00
CYPRUS	3,390,650	2,604,090	1,106,263	-23.20	-57.52
CAPE VERDE	1,154,002	1,399,367	1,101,207	21.26	-21.31
ALBANIA	2,571	429,193	1,079,296	0.00	151.47
ZIMBABWE	430,627	879,960	1,076,666	104.34	22.35
ETHIOPIA (NEW)	0	0	1,041,500	0.00	-0.30
MOZAMBIQUE	157,583	687,791	1,034,536	336.46	60.41
ZAMBIA	585,695	307,938	958,122	-47.42	211.14
KENYA	2,736,637	1,481,794	887,183	-45.85	-40.13
BRUNEI	461,300	938,028	871,514	103.34	-7.09
ARMENIA	0	0	823,917	0.00	0.00
MACAO	388,055	253,084	794,684	-34.78	214.00
BANGLADESH	313,269	368,248	779,159	17.55	111.59
SWAZILAND	58,079	1,379,037	711,955	2274.42	-48.37
GHANA	455,407	938,028	668,838	16.80	25.95
ANTIGUA	419,895	1,176,867	665,426	180.28	-43.46
ESTONIA	0	173,301	621,560	0.00	258.66
BOTSWANA	2,556,559	2,594,275	611,461	1.48	-76.43
NICARAGUA	653,551	668,934	599,552	2.35	-10.37
YEMEN ARAB REPUBLIC	236,131	382,217	510,064	61.87	38.68
MONGOLIA	0	80,139	515,564	0.00	543.34
MAURITIUS	244,754	415,455	507,626	69.74	22.35
BELARUS	0	153,617	496,181	0.00	223.00
LITHUANIA	0	164,273	485,831	0.00	195.75
ST.CHRISTOPHER-NEVIS	307,178	841,266	481,943	173.87	-42.78
BENIN	765,620	769,659	440,391	0.00	-42.78
ST. LUCIA	676,007	490,707	438,112	-27.30	-10.72
CAMEROON	148,629	356,505	433,366	139.86	21.56
ETHIOPIA	38,162	127,333	418,031	233.66	223.00
MONACO	91,166	231,827	411,966	154.29	77.70
ANGUILLA	261,736	246,557	408,078	0.00	50.41
GUYANA	242,046	534,872	405,977	120.98	-24.10
LIECHTENSTEIN	200,575	234,437	404,138	16.88	72.39
MARTINIQUE	2,130,642	514,830	404,103	-76.84	-21.51
UGANDA	130,908	298,499	393,749	128.98	31.91
DOMINICA	389,467	356,298	371,179	-8.52	4.18
LATVIA	0	139,337	358,107	0.00	157.01
NEPAL	94,784	164,216	336,432	62.70	118.16
BRITISH VIRGIN ISLANDS	302,013	472,981	318,567	56.61	-32.65
GUADELOUPE	162,407	193,082	316,095	18.89	63.71
IVORY COAST	677,462	1,281,049	307,781	89.10	-75.97
CONGO	120,338	276,551	305,044	129.81	10.30





# TABLE 2 MASSACHUSETTS EXPORTS BY COUNTRY

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT INCREASE  
91-92 92-93

	1991	1992	1993		
DJIBOUTI	266,659	401,008	291,039	66.30	-27.42
SENEGAL	611,951	928,039	284,441	-46.08	-13.80
ANGOLA	82,513	18,606	281,329	-77.45	1412.12
ST. VINCENT	176,029	41,320	274,908	-65.75	665.31
MACEDONIA	0	269,663	272,721	0.00	2.85
NIGER	200,084	928,039	230,495	363.82	-75.16
ST. PIERRE AND MIQUELON	61,776	176,467	230,320	186.66	30.52
SUDAN	113,425	266,070	206,141	133.70	-22.23
FAROE ISLAND	250,177	352,253	199,117	40.80	-43.47
MONTSERRAT	229,833	60,324	194,792	-78.10	287.08
BURKINA	343,100	961,648	194,148	180.28	-79.81
TANZANIA	138,188	120,019	191,542	-13.15	69.69
MALAWI	165,448	29,403	188,445	-82.23	640.90
NEW CALEDONIA	18,306	1,720,462	176,549	8585.69	-89.74
FRENCH POLYNESIA	165,392	86,257	141,333	-47.85	92.25
SOMALIA	30,410	0	141,659	-100.00	2.00
GIBRALTAR	3,955,940	176,029	141,333	-95.65	-19.71
BELIZE	317,675	64,197	199,117	-79.79	84.30
TURKS AND CAICOS ISLANDS	218,919	52,827	114,219	-75.87	116.21
SURINAME	49,845	18,306	112,295	-67.17	686.19
THE GAMBIA	18,306	66,478	104,325	263.15	66.93
GREENLAND	0	9,475	84,000	0.00	786.64
CAMBODIA	0	4,446	76,976	0.00	1631.35
GUINEA	1,043,923	204,270	75,433	-80.43	-63.07
REUNION	144,254	175,863	70,797	21.91	-89.74
CUBA	0	0	65,657	0.00	0.00
MADAGASCAR	173,764	99,279	55,372	-42.87	-44.23
RWANDA	390,073	78,638	54,191	-75.87	-31.00
VIETNAM	0	96,237	52,687	0.00	-45.25
MARSHALL ISLANDS	3,270	5,478	50,075	67.52	814.11
FED. ST ALES OF MICRONESIA	3,270	162,400	49,510	4866.36	-69.51
PAPUA NEW GUINEA	307,863	169,472	46,097	-44.95	-72.80
GRENADA	130,403	250,563	45,680	92.15	-81.81
CENTRAL AFRICAN REPUBLIC	15,543	12,664	45,481	-18.52	259.14
LIBERIA	0	213,948	44,231	0.00	-79.33
SIERRA LEONE	264,106	163,306	40,218	-38.17	-75.37
NAMIBIA	641,663	17,526	38,091	-97.27	117.34
HEARD AND MCDONALD ISLANDS	0	0	31,862	0.00	0.00
BURUNDI	102,508	67,596	30,703	-34.06	-54.68
FRENCH GUIANA	32,755	0	29,979	-100.00	0.00
GEORGIA	0	0	28,842	0.00	0.00
BOSIA-HERCEGOVINA	0	81,150	24,390	0.00	-69.94
MALI	120,535	132,846	21,584	10.21	-83.75
IRAQ	0	0	19,932	0.00	0.00
NORFOLK ISLAND	0	38,268	17,806	0.00	-53.47



# TABLE 2 MASSACHUSETTS EXPORTS BY COUNTRY

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT INCREASE  
91-92 92-93

	1991	1992	1993		
NAURU	0	0	17,662	0.00	0.00
MAURITANIA	13,819	66,942	17,662	384.42	-73.68
PALAU	3,270	218,876	16,119	6693.43	-82.64
TOGO	644,063	225,331	14,528	-58.58	-93.55
ZAIRE	92,673	41,352	12,262	-55.38	-70.35
SAO TOME AND PRINCIPE	47,263	13,407	11,141	-71.63	-16.90
WESTBNK	0	6,924	17,662	0.00	53.12
BRITISH INDIAN OCEAN TERR.	0	68,512	9,586	0.00	-83.62
FALKLAND ISLANDS	0	0	8,064	0.00	0.00
SAN MARINO	0	24,924	7,678	0.00	-69.19
CHAD	61,104	48,567	7,109	-4.96	-85.36
ANDORRA	10,268	97,390	6,037	848.48	-93.80
YUGOSLAVIA(NEW)	0	72,363	4,732	0.00	-93.46
COMOROS	0	10,040	3,785	0.00	-62.30
MALDIVE ISLANDS	23,583	0	3,782	-100.00	0.00
TURKMENISTAN	0	68,431	3,556	0.00	-94.80
LAOS	0	0	2,660	0.00	0.00
UZBEKISTAN	0	1,787	2,660	0.00	48.85
ST. HELENA	0	0	1,948	0.00	0.00
MOLDOVA	0	18,040	1,576	0.00	-91.70
CZECHOSLOVAKIA	6,611,791	13,834,444	0	109.24	-100.00
SOVIET UNION	17,997,966	9,071,401	0	-49.60	-100.00
YUGOSLAVIA(OLD)	14,665,967	3,023,267	0	-79.39	-100.00
SOLOMON ISLANDS	113,008	764,015	0	676.07	-100.00
TONGA	0	114,168	0	0.00	-100.00
LESOTHO	118,094	68,786	0	-50.22	-100.00
GABON	34,171	46,992	0	37.52	-100.00
SEYCHELLES	13,819	30,833	0	135.08	-100.00
CHRISTMAS ISLAND	0	15,072	0	0.00	-100.00
KYRGYZSTAN	0	13,407	0	0.00	-100.00
WESTERN SAMOA	6,316	4,272	0	-32.36	-100.00
VATICAN CITY	42,506	0	0	-100.00	0.00
EQUATORIAL GUINEA	10,513	0	0	-100.00	0.00
IRAQ-SAUDI ARABIA NEUTRAL ZN	3,400	0	0	-100.00	0.00





## **PERFORMANCE OF MASSACHUSETTS' EXPORTS IN SELECTED MARKETS**

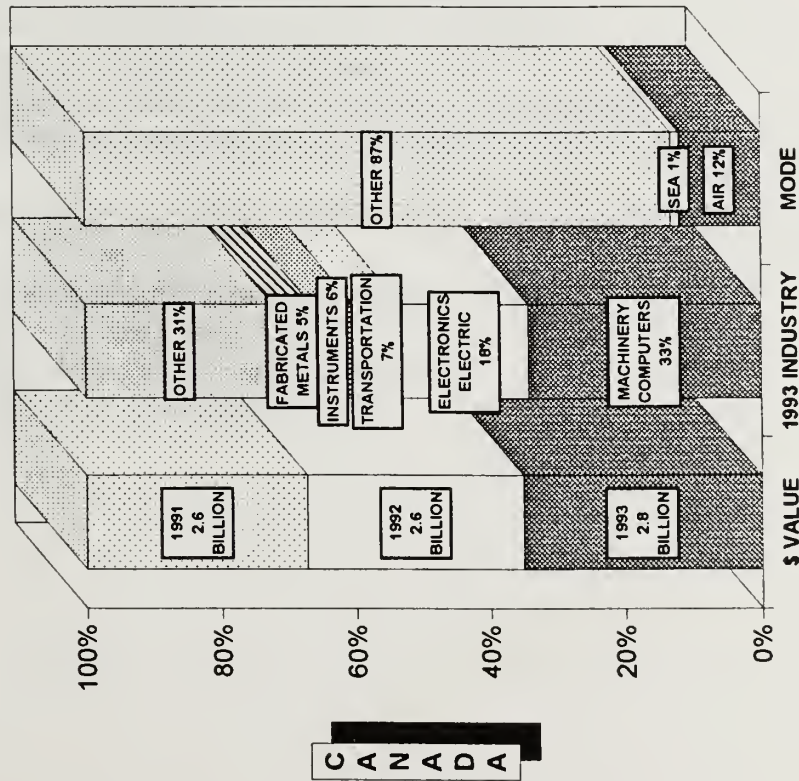
### **CANADA**

- \* **Massachusetts' exports to Canada rebounded in 1993 with a 226 million dollar or 8.8% increase from 1992. The reversal of last years -1.1% growth rate was due to large increases in electronics and electric equipment (79 million dollars) and fabricated metal products (34 million dollars).**
- \* **Industrial machinery and computer equipment accounted for 33% of all exports to Canada in 1993. Massachusetts' machinery and computer exports lost 2.3% to Canada from 1992-1993, while New England's and the United States' exports to Canada gained 11.8% and 9.6%.**
- \* **Massachusetts' industries with the largest gains in total shipments to Canada were;**
  - 1) Electronics and electric equipment - \$79 million**
  - 2) Fabricated metal products - \$34 million**
  - 3) Petroleum and coal products - \$23 million**
  - 4) Chemicals and allied products - \$22 million**
  - 5) Rubber and miscellaneous plastics products - \$18 million**
- \* **Other industries with strong 1993 growth rates include;**
  - 1) Apparel and other textile products - 66%**
  - 2) Agricultural production - crops - 45%**
  - 3) Scrap and waste - 44%**
  - 4) Miscellaneous manufacturing industries - 19%**

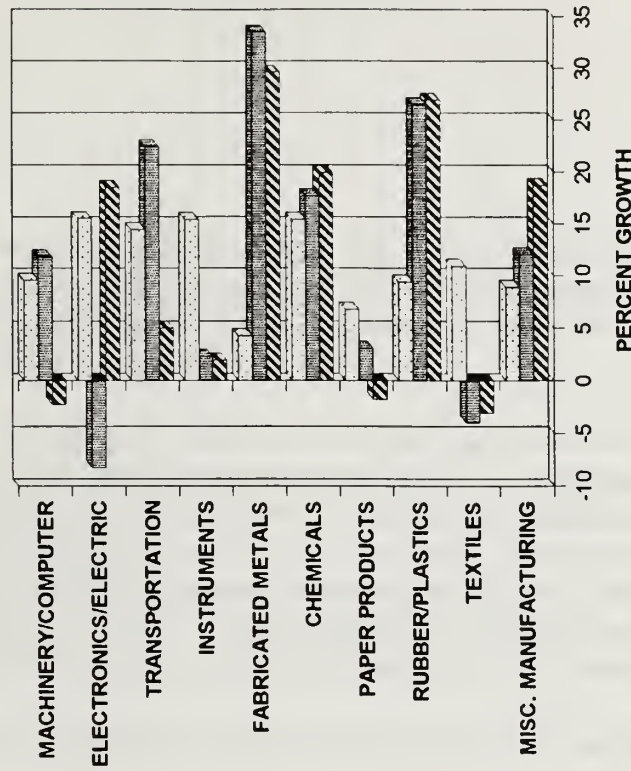




# MASSACHUSETTS EXPORT PERFORMANCE: SELECTED MARKETS



# MA, NE AND U.S. EXPORT GROWTH TO CANADA 1992-93 MASSACHUSETTS TOP TEN INDUSTRIES FOR 1993





## **PERFORMANCE OF MASSACHUSETTS' EXPORTS IN SELECTED MARKETS**

### **JAPAN**

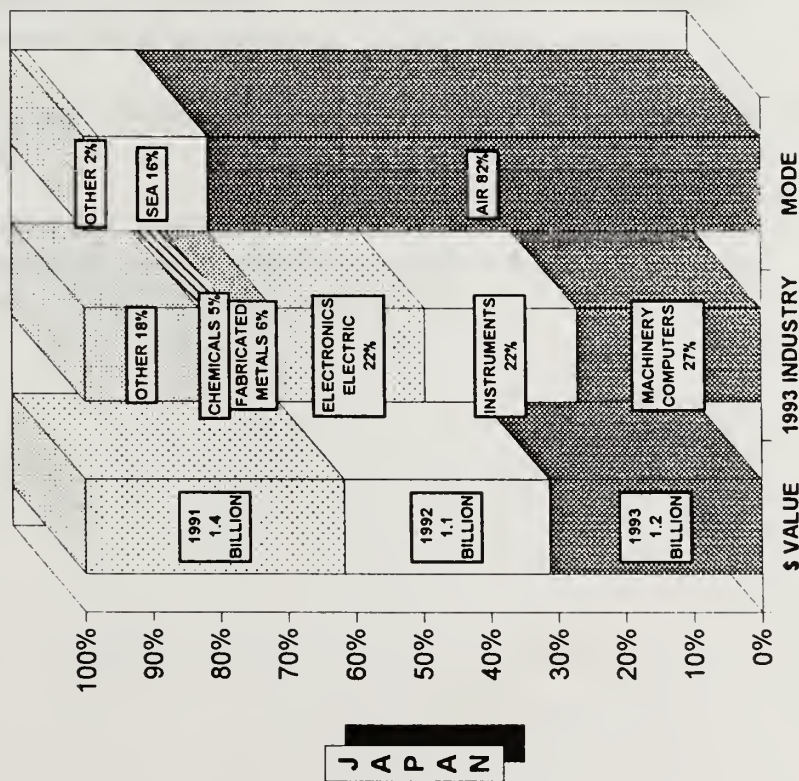
- \* Massachusetts' total exports to Japan increased 35 million dollars in 1993 with a growth rate of 3.1%, reversing the -21% decline from the previous year. New England suffered a 5% decrease in exports, while the United States returned to the positive at 0.4%.
- \* Massachusetts' top industry exports to Japan experienced strong growth in 1993. Electronic and electric equipment exports expanded by 46 million dollars with a 22% increase in growth. Fabricated metal products increased by 20 million dollars and grew at a rate of 36%. Industrial machinery and computers, Massachusetts' leading industry to Japan, continued to decline in 1993 at a rate of -9.7%. New England's and United States' exports continued to decline in this industry at rates of -8.8% and -3.1%.
- \* Significant growth occurred in these Massachusetts' industries;

  - 1) Electronic and electric equipment - \$46 million
  - 2) Fabricated metal products - \$20 million
  - 3) Fishing, hunting and trapping - \$14 million
  - 4) Scrap and waste - \$11 million
  - 5) Apparel and other textile products - \$4 million
  - 6) Rubber and miscellaneous plastics products - \$4 million
- \* Other industries that experienced strong growth rates in 1993 include;

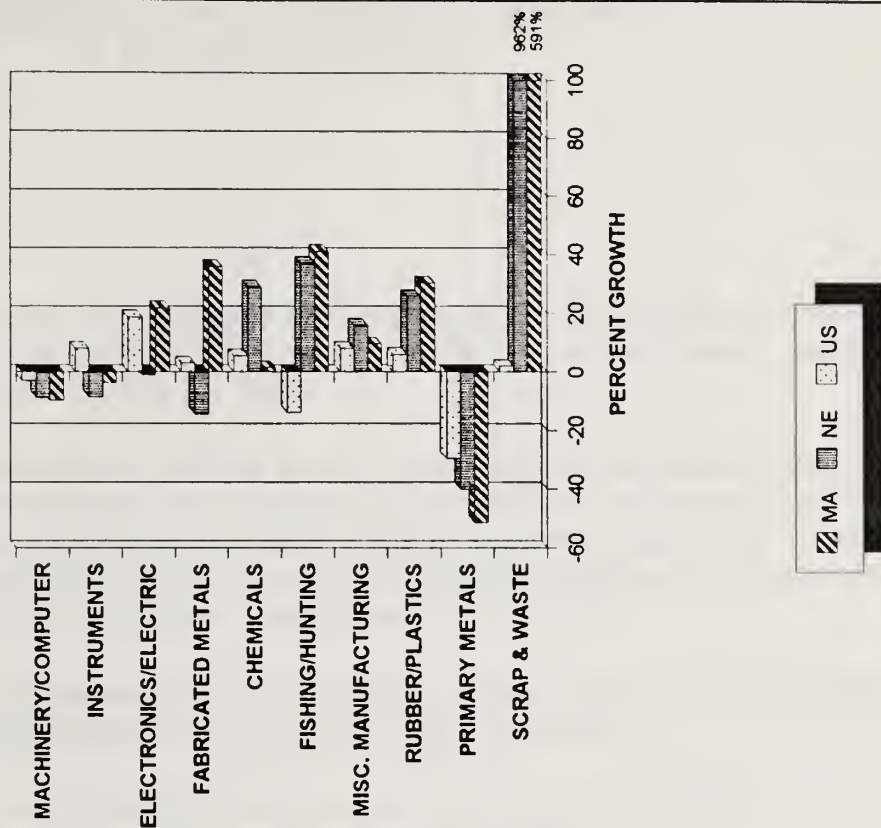
  - 1) Apparel and other textile products - 72%
  - 2) Textile mill products - 51%
  - 3) Leather and leather products - 35%
  - 4) Printing and publishing - 23%



# MASSACHUSETTS EXPORT PERFORMANCE: SELECTED MARKETS



# MA, NE AND U.S. EXPORT GROWTH TO JAPAN 1992-93 MASSACHUSETTS TOP TEN INDUSTRIES FOR 1993







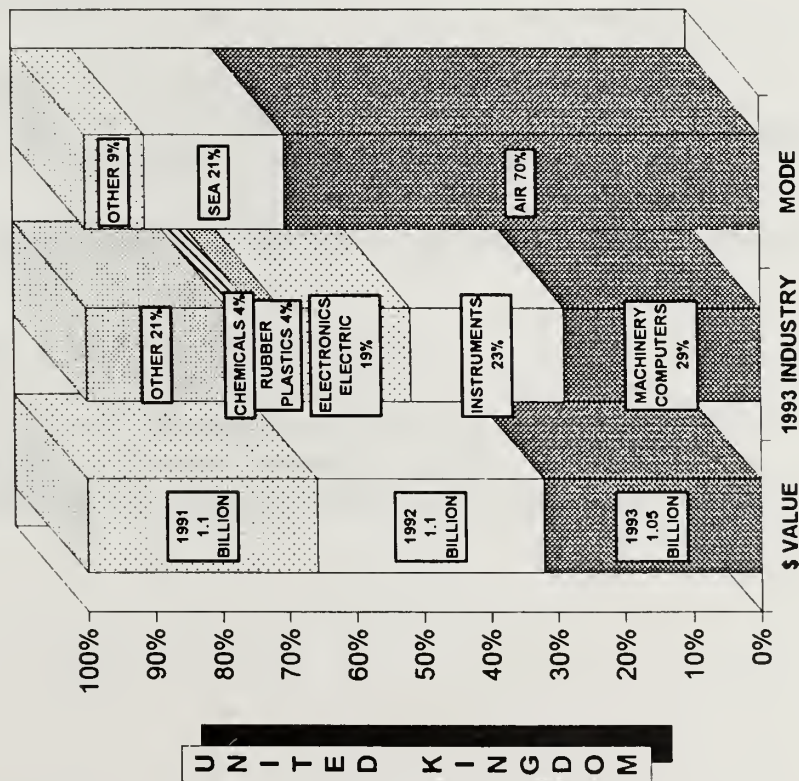
## **PERFORMANCE OF MASSACHUSETTS' EXPORTS IN SELECTED MARKETS**

### **UNITED KINGDOM**

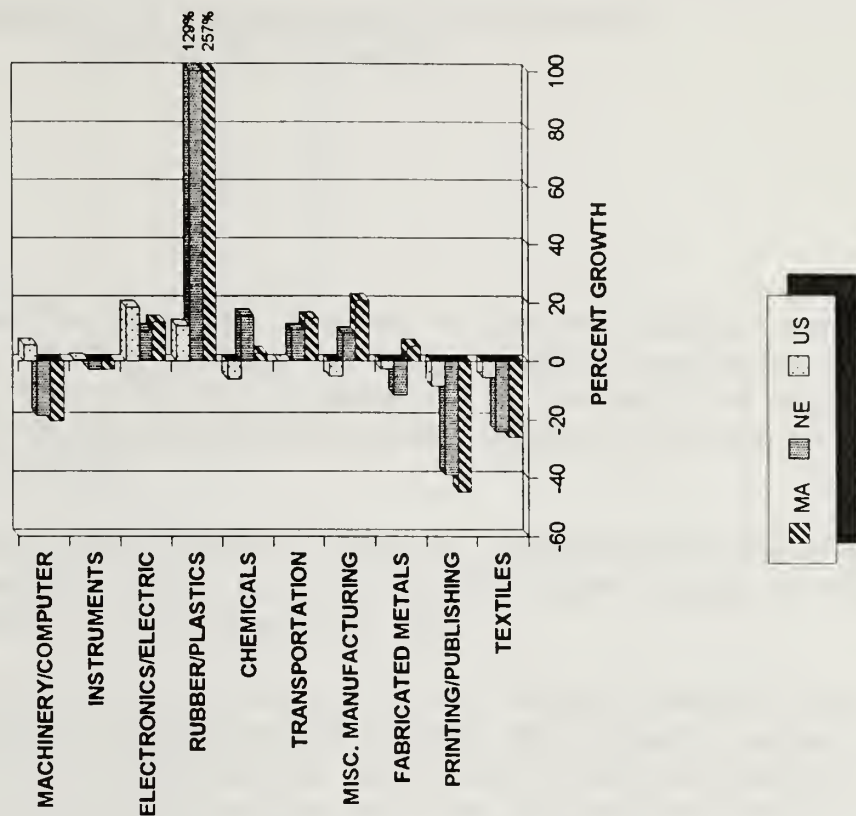
- \* Massachusetts' and New England's exports declined to the United Kingdom at rates of -4.9% and -2.6% from 1992 to 1993. United States' exports expanded at a rate of 15.6% for 1993.**
- \* Losses in Massachusetts' primary export to the United Kingdom, industrial machinery and computers, were largely responsible for the overall declines in Massachusetts' exports to the United Kingdom from 1992-1993. In 1993 industrial machinery and computers comprised 29% of Massachusetts total exports to the United Kingdom, down from 41% in 1990.**
- \* Massachusetts' total export loss of 54 million dollars to the United Kingdom in 1993, was nearly offset by increases in these industries;**
  - 1) Rubber and miscellaneous plastic products - \$33 million**
  - 2) Electronic and electric equipment - \$24 million**
  - 3) Scrap and waste - \$13 million**
  - 4) Miscellaneous manufacturing industries - \$5 million**
  - 5) Transportation equipment - \$5 million**
- \* Other smaller industries that have strong growth rates are (in order of industry size);**
  - 1) Leather and leather products - 61%**
  - 2) Apparel and other textile products - 92%**
  - 3) Food and kindred products - 67%**



# MASSACHUSETTS EXPORT PERFORMANCE: SELECTED MARKETS



# MA, NE AND U.S. EXPORT GROWTH TO THE UNITED KINGDOM 1992-93 MASSACHUSETTS TOP TEN INDUSTRIES FOR 1993





**PERFORMANCE OF MASSACHUSETTS' EXPORTS  
IN SELECTED MARKETS**

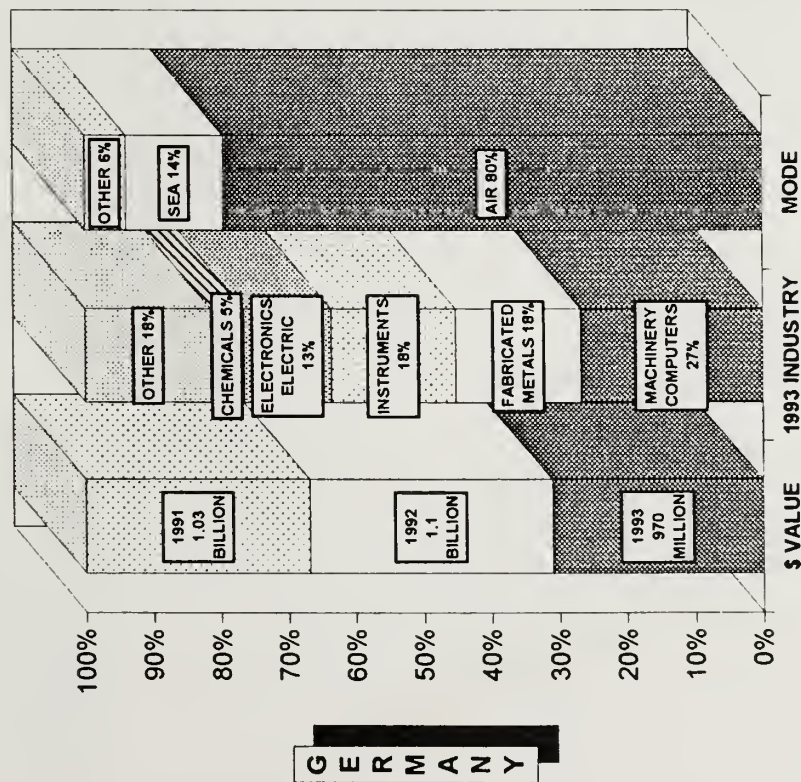
**GERMANY**

- \* Massachusetts' top five exporting industries to Germany suffered severe declines in 1993. The two leading industries, industrial machinery and fabricated metals, lost in export shipments \$32 million and \$104 million, respectively. New England's and United States' exports also experienced significant losses in 1993.
- \* Industrial machinery and computer equipment accounted for 27% of all Massachusetts' exports to Germany in 1993. The industry exported 260 million dollars with an 11% decrease since 1992.
- \* Fabricated metal products accounted for 25% of all Massachusetts' exports to Germany in 1992 and dropped to 18% in 1993. This industry surged in 1991 and 1992 at rates of 42% and 50%, but slowed in 1993 dropping 37%. The sharp decline in fabricated metals was the primary factor in Massachusetts' 13.6% decline in overall export growth to Germany.
- \* The largest increases in exports by industry occurred in;
  - 1) Printing and publishing - \$28 million
  - 2) Rubber and miscellaneous plastics products - \$8 million
  - 3) Leather and leather products - \$3 million
- \* Strong 1992 growth rates to Germany occurred in these areas (in order of size of industry);
  - 1) Printing and publishing - 184%
  - 2) Textile mill products - 13%
  - 3) Rubber and miscellaneous plastics products - 61%
  - 4) Leather and leather products - 39%
  - 5) Miscellaneous manufacturing industries - 31%

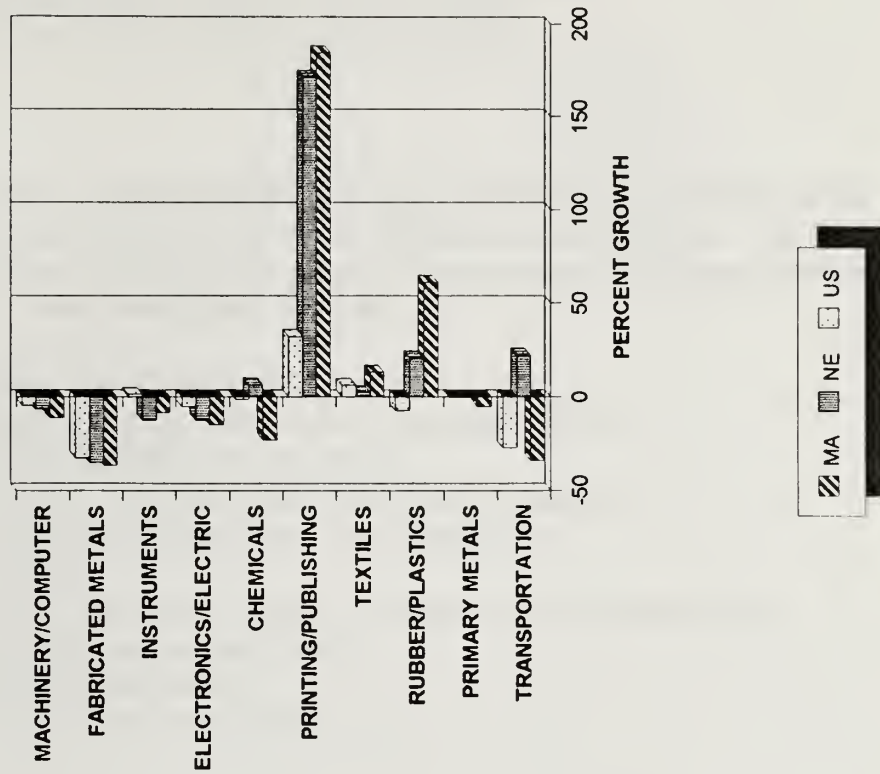




# MASSACHUSETTS EXPORT PERFORMANCE: SELECTED MARKETS



# MA, NE AND U.S. EXPORT GROWTH TO GERMANY 1992-93 MASSACHUSETTS TOP TEN INDUSTRIES FOR 1993





**MASSACHUSETTS' EXPORTS TO COUNTRIES  
OF THE WORLD AS A PERCENTAGE  
OF TOTAL U.S. EXPORTS IN 1993**

\* Massachusetts' exports accounted for 2.62% of United States total exports in 1993. Therefore, any country for which Massachusetts' share of United States' exports exceeds 2.62% can be considered a country of specialization for Massachusetts. Such countries include:

- 1) Canada and Greenland
- 2) Numerous countries in the European Union
- 3) Sweden, Finland and Norway
- 4) Albania, Poland, Czech and Slovak Republics
- 5) Hong Kong, Philippines, and Singapore
- 6) Australia
- 7) Republic of South Africa, Swaziland and Mozambique
- 8) Burma, Mongolia and Nepal
- 9) Israel and Lebanon
- 10) Slovenia and Kazakhstan



# MA EXPORTS TO COUNTRIES OF THE WORLD AS A % OF TOTAL U.S. EXPORTS 1993







**RANK OF MASSACHUSETTS' EXPORTS TO THE WORLD  
VERSUS ALL STATES 1993**

- \* **Massachusetts ranks in the top ten among all states for exporting to the following countries:**

- 1) Canada, Greenland and Iceland**
- 2) Numerous countries in the European Union**
- 3) Poland, Czech and Slovak Republics**
- 4) Kazakhstan**
- 5) Burma, Mongolia, and Nepal**
- 6) Hong Kong, Philippines and Singapore**
- 7) Cuba**
- 8) More than half a dozen countries in Africa**
- 9) Australia and New Zealand**
- 10) Israel**

- \* **Massachusetts ranked eleventh in the nation for total dollar volume of exports in 1993, dropping one position from its six consecutive year ranking as tenth in the nation's total exports.**



# RANK OF MASSACHUSETTS EXPORTS TO THE WORLD VERSUS ALL STATES 1993







## PERFORMANCE OF MASSACHUSETTS' TOP EXPORT MANUFACTURING INDUSTRIES

- \* Massachusetts' leading export industry, industrial machinery and computers, which comprises 32% of all Massachusetts' exports, continued to decline in 1993 at a rate of -7.2%. The losses in exports of machinery and computers in the past two years impacted heavily on Massachusetts' sluggish overall export growth rates of 2.2% in 1992, 0.3% in 1993.
- \* Electronic and electric equipment exports rebounded in 1993, growing by \$158 million or 7.6% over 1992. This strong performance in Massachusetts' second leading industry helped to offset the loss in industrial machinery and computer exports. From 1988 to 1993, electronic and electric equipment had the largest export gain of any industry, expanding by \$1.3 billion or 137%.
- \* Instruments and related products accounted for 1.9 billion dollars of Massachusetts' exports in 1993, up just 1% over the previous year. The industry has grown a moderate 16% since 1988.
- \* Fabricated metal products exports declined by \$100 million or 13.9% from 1992 to 1993. Despite the recent downturn, however, fabricated metals grew by 238% and had the second largest increase in value of export shipments from 1988-1993. Fabricated metals moved from Massachusetts' eighth to its fourth largest exporting industry between 1988 and 1993.
- \* Strong dollar increases in the following exporting industries occurred in 1993 (in order of industry size);
  - 1) Instruments and related products - \$19 million
  - 2) Chemicals and allied products - \$38 million
  - 3) Transportation equipment - \$20 million
  - 4) Rubber and miscellaneous plastics products - \$137 million
  - 5) Textile mill products - \$6 million
  - 6) Primary metal industries - \$11.5 million
- \* Strong annual growth rates occurred in many industries (in order of size of industry);
  - 1) Rubber and miscellaneous plastics products - 58%
  - 2) Scrap and waste - 42%
  - 3) Leather and leather products - 14%
  - 4) Apparel and other textile products - 50%
  - 5) Petroleum and coal products - 229%
  - 6) Furniture and fixtures - 24%

See Table 3 and Appendix A



# TABLE 3 MASSACHUSETTS EXPORTS BY INDUSTRY

MASSACHUSETTS TOTAL DOLLAR VALUE IN MILLIONS  
SORTED BY 1993 \$ VALUE

PERCENT GROWTH RATE  
1992-1993

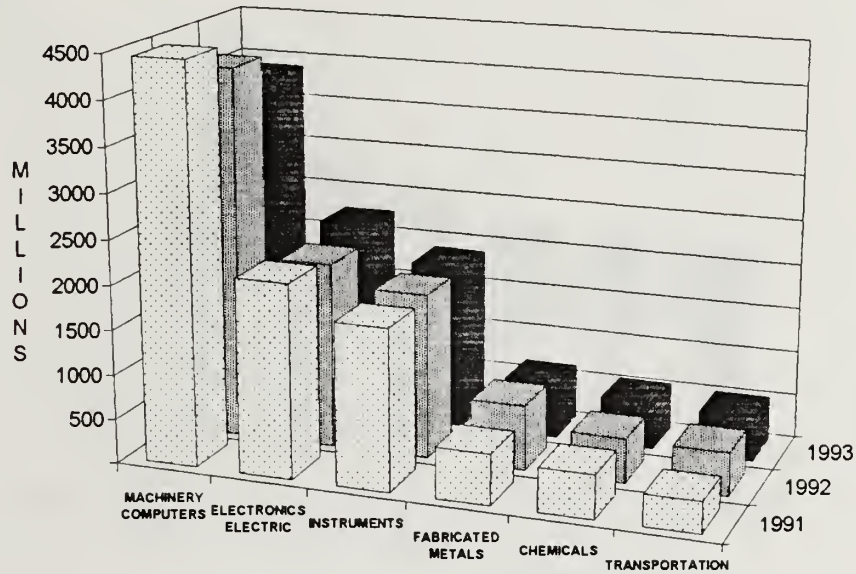
INDUSTRY	1991	1992	1993
TOTAL ALL INDUSTRIES	11,891,432,633	12,167,614,431	12,194,833,110
INDUSTRIAL MACHINERY, COMPUTER EQ.	4,460,085,434	4,174,019,460	3,873,987,016
ELECTRONIC, ELECTRIC EQUIPMENT	2,167,372,161	2,082,088,043	2,240,488,731
INSTRUMENTS AND RELATED PRODUCTS	1,796,899,213	1,848,348,302	1,867,013,760
FABRICATED METAL PRODUCTS	665,600,762	726,886,596	625,753,955
CHEMICALS AND ALLIED PRODUCTS	490,303,304	496,293,157	534,097,385
TRANSPORTATION EQUIPMENT	352,205,403	479,039,404	499,068,395
RUBBER AND MISC. PLASTICS PRODUCTS	196,704,632	236,833,389	373,833,043
TEXTILE MILL PRODUCTS	199,510,625	257,271,266	263,293,011
PAPER AND ALLIED PRODUCTS	194,032,653	243,109,182	242,760,182
PRIMARY METAL INDUSTRIES	216,525,092	199,970,618	211,461,841
MISC. MANUFACTURING INDUSTRIES	179,137,076	208,215,914	210,716,047
FISHING, HUNTING, AND TRAPPING	182,821,156	187,143,193	203,398,503
PRINTING AND PUBLISHING	141,571,538	161,526,765	171,199,244
SCRAP AND WASTE	120,352,123	114,802,650	163,304,749
FOOD AND KINDRED PRODUCTS	117,862,101	128,890,178	133,209,414
LEATHER AND LEATHER PRODUCTS	94,606,317	114,163,958	129,608,554
APPAREL AND OTHER TEXTILE PRODUCTS	33,848,206	56,058,831	83,837,604
SPECIAL CLASSIFICATION PROVISIONS	148,297,610	171,156,337	81,265,240
STONE, CLAY, AND GLASS PRODUCTS	77,375,472	83,050,171	77,353,527
AGRICULTURAL PRODUCTION-CROPS	36,773,390	47,338,455	44,983,147
CANADIAN NONCANADIAN GOODS RETURNED	32,157,278	42,766,550	41,020,061
PETROLEUM AND COAL PRODUCTS	8,027,943	9,451,933	31,098,886
USED OR SECOND-HAND MERCHANDISE	19,710,605	29,573,347	25,812,774
FURNITURE AND FIXTURES	16,717,077	20,698,516	25,711,164
LUMBER AND WOOD PRODUCTS	19,507,623	17,501,186	19,594,551
NONMETALLIC MINERALS, EXCEPT FUELS	6,687,893	5,822,997	8,194,947
FORESTRY	7,437,026	8,121,830	7,889,610
AGRICULTURAL PRODUCTION-LIVESTOCK	8,467,332	6,897,749	3,432,958
BITUMINOUS COAL & LIGNITE MINING	0	4,513	904,076
METAL MINING	113,976	207,261	378,698
OIL AND GAS EXTRACTION	721,612	362,680	146,772
TOBACCO MANUFACTURES	0	0	15,265

MA	NE	US
0.3	3.2	0.9
-7.2	-0.8	9.4
7.6	-1.6	15.6
1	-1.7	9.4
-13.9	-1.1	2.1
7.6	16.5	2.2
4.2	8.5	-3
57.8	40.6	9.4
2.3	0.8	9.4
-0.1	0.8	-4.7
5.7	3.2	23.4
1.2	0.8	4.6
5.7	2	-11.6
6	11.2	7.3
42.2	38.4	-1.5
3.4	29.7	2.6
13.5	0.8	-0.4
49.6	31.9	16.1
-52.5	-49.7	-30.4
-0.1	-9.3	0.9
-5	45.1	-3.2
-0.1	10.3	16.1
229	135.4	-0.4
-12.7	-17.3	29
24.2	-10.8	11.4
12	6	9.4
40.7	45.1	-3.6
-2.9	-39.4	-14.8
-50.2	3.2	-6.1
19,932	282.6	-27.1
82.7	-63.3	-32.3
-59.5	-32.9	-20.5
0	132.4	-5.4

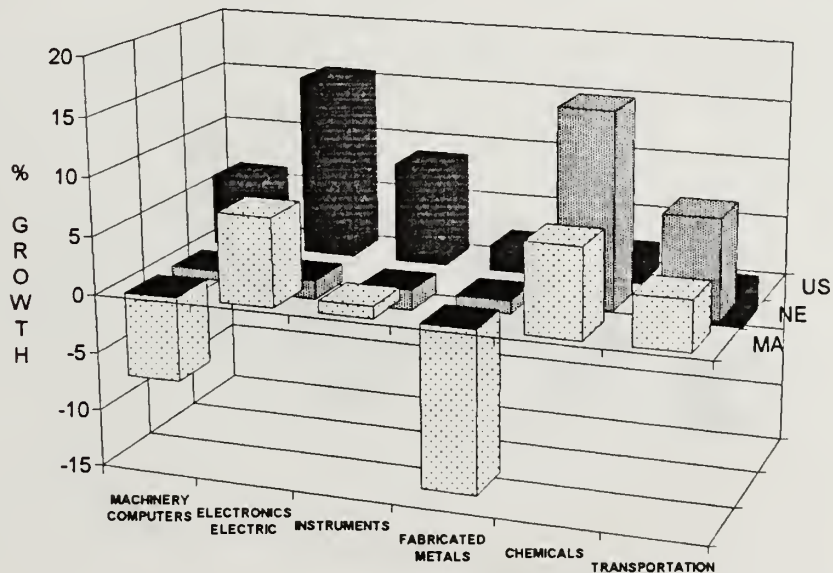




# **MA EXPORTS: TOP MANUFACTURING INDUSTRIES (RANKED BY 1993 TOTAL DOLLAR VALUE)**



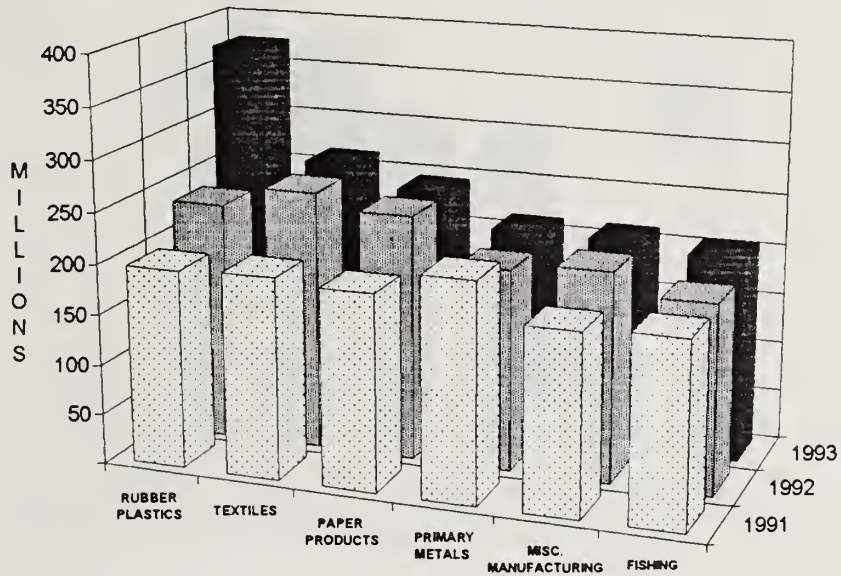
## **MA, NE AND U.S. EXPORT GROWTH 1992-93 MASSACHUSETTS TOP MANUFACTURING INDUSTRIES**



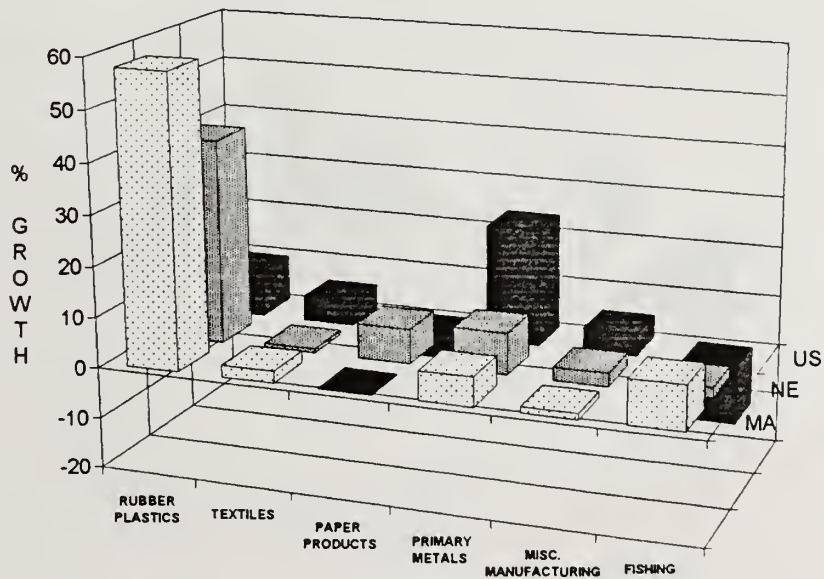




# **MA EXPORTS: TOP MANUFACTURING INDUSTRIES (RANKED BY 1993 TOTAL DOLLAR VALUE)**

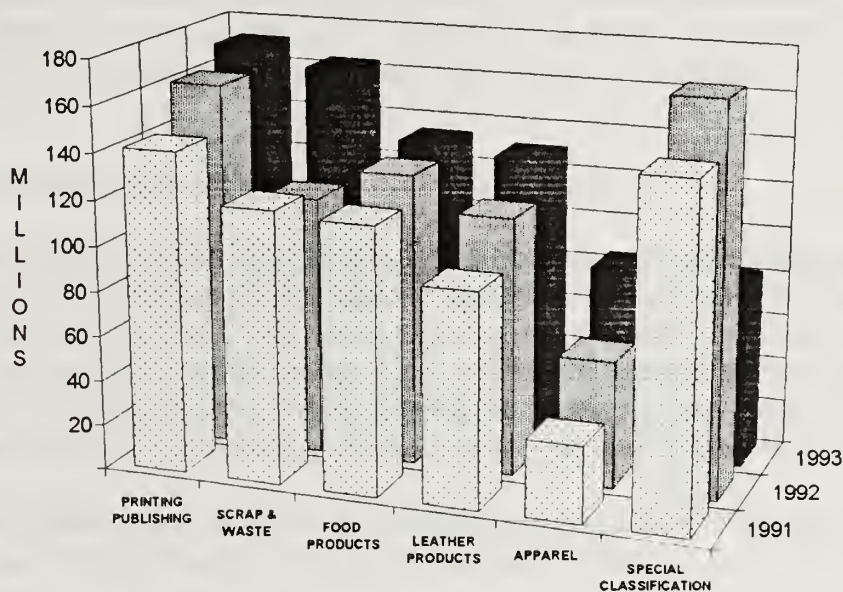


## **MA, NE AND U.S. EXPORT GROWTH 1992-93 MASSACHUSETTS TOP MANUFACTURING INDUSTRIES**

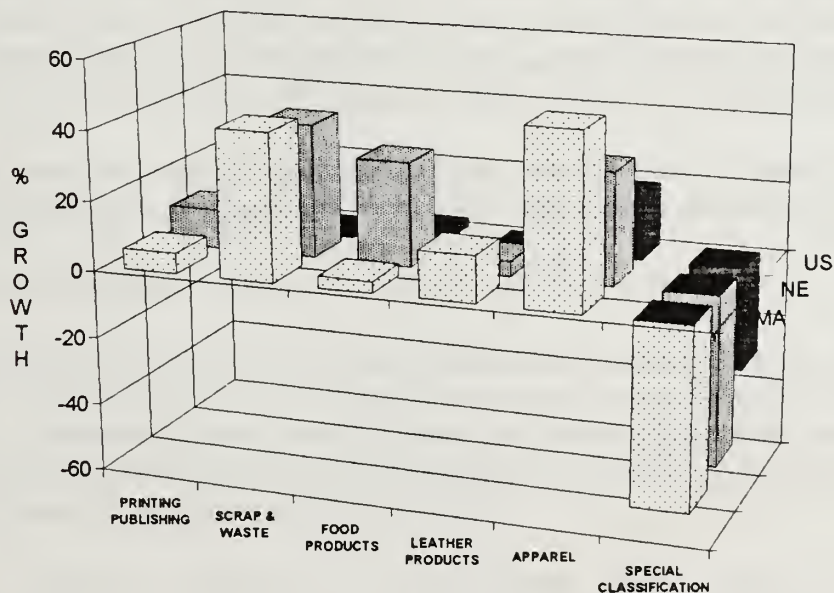




# **MA EXPORTS: TOP MANUFACTURING INDUSTRIES (RANKED BY 1993 TOTAL DOLLAR VALUE)**



## **MA, NE AND U.S. EXPORT GROWTH 1992-93 MASSACHUSETTS TOP MANUFACTURING INDUSTRIES**







## TOP MASSACHUSETTS' EXPORTS AND EMPLOYMENT ALONG WITH STATE AND NATIONAL EXPORTS

The following graphs depict percentage growth by industry since the first quarter of 1988. Quarter one 1988 is given an "industrial index" value of one for each graph. Therefore a subsequent quarter with an index of two means that exports are twice as high in that quarter as in quarter one 1988. Similarly, a subsequent index of 0.5 means exports are only half as high as in quarter one 1988.

### Industrial Machinery Including Computer Equipment

- \* Massachusetts' industrial machinery and computer exports grew very slowly to a peak of 1.1 in the first quarter 1991, declining slowly thereafter to a low of 0.8 times its 1988 reference level in the fourth quarter of 1993. The industry lost 14% of the total dollar volume of export shipments from 1988 to 1993. Employment in industrial machinery and computers likewise declined steadily over the period to a low of 0.64 times the 1988 level.
- \* United States' exports grew at a moderate pace to a 1993 level of 1.6 times the value of shipments in the first quarter of 1988.

### Electronics, Electric Equipment Excluding Computers

- \* Massachusetts' exports of electronic and electric equipment grew rapidly from 1988 to 1991, dropped slightly in 1992, then regained speed in 1993, reaching a volume 2.7 times its 1988 level. Electronics and electric equipment is the fastest growing of Massachusetts' top industries by dollar value of exports. The total dollar volume of shipments expanded by 137% from 1988 to 1993. In contrast, Massachusetts' electronics employment fell slowly over the period to 0.7 times employment in the first quarter of 1988.
- \* Massachusetts' exports growth outstripped national growth in electronics which peaked at 2.3 times the level of its exports in the first quarter of 1988.

### Instruments and Related Products

- \* Export growth in instruments and related products was very slow, reaching a high of only 1.2 in 1993. Export shipments grew a total of 16% from 1988 to 1993. Massachusetts' employment in instruments and related products fared better than employment in the other top exporting industries, dropping more gradually to a low of 0.83 in 1993.
- \* United States' exports of instruments grew more quickly than Massachusetts', peaking at 1.7 in the fourth quarter of 1993.



## **Fabricated Metal Products**

- \* Fabricated metals had the second largest increase in dollar volume of exports from 1988 to 1993. The industry reached a high of 5.5 in the first quarter of 1992, then declined to 3.6 times its 1988 level by the end of 1993. The value of export shipments grew 239% from 1988 to 1993. Employment declined slowly to 0.79.
- \* Massachusetts' export growth in the industry far surpassed national growth.

## **Chemicals and Allied Products**

- \* Massachusetts' exports of chemicals expanded rapidly in 1989 and 1990, grew much more slowly in 1991 and 1992, then resumed a strong pace in 1993, ending the year at 1.8 times its 1988 level. Chemical exports rose 65% and had the fourth largest increase in dollar volume of exports from 1988 to 1993. Employment in the chemical industry declined more slowly than in the other top exporting industries and showed a slight rebound in 1993 at 0.89 times the 1988 employment level.
- \* Massachusetts' growth in exports of chemicals surpassed national growth which peaked at 1.4 in 1992.

## **Transportation Equipment**

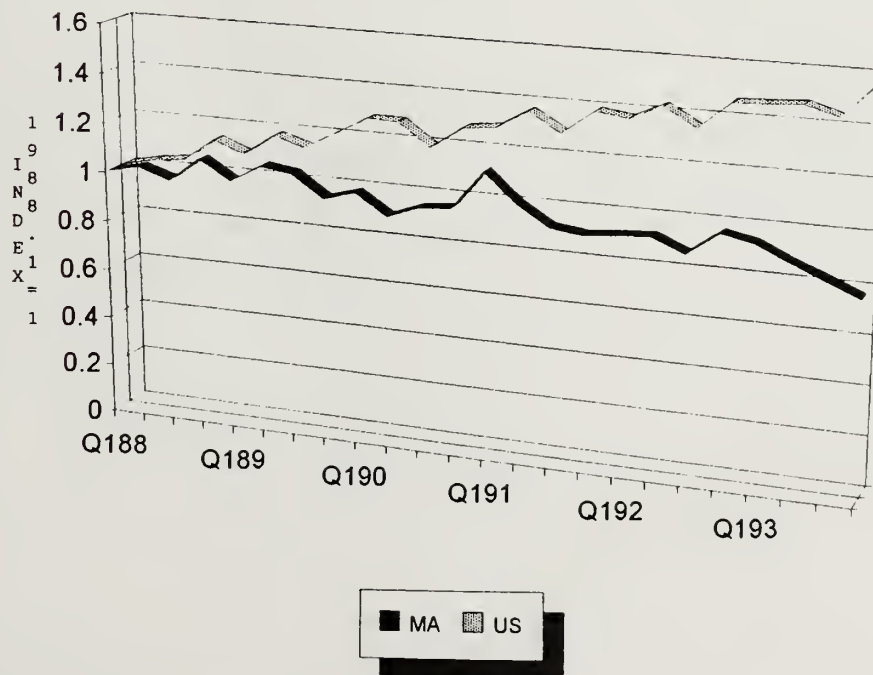
- \* Massachusetts' transportation equipment exports declined to a low of .45 in 1991, then rebounded in 1992 and 1993 to .8 times the volume of exports in 1988. Transportation exports lost 11% in dollar value of export shipments from 1988-93 and moved from Massachusetts' fourth to sixth largest exporting industry. Massachusetts' transportation industry employment fell to .64 times its 1988 level.
- \* United States' exports of transportation equipment, the nation's largest exporting industry, expanded to a high of 1.75 in the second quarter of 1993. However, due to an exceptionally poor third quarter showing, United States' transportation exports experienced an overall negative growth rate of -3% in 1993.



# PERFORMANCE: MA EXPORTS AND EMPLOYMENT INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT



# PERFORMANCE: MA AND U.S. EXPORTS INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT



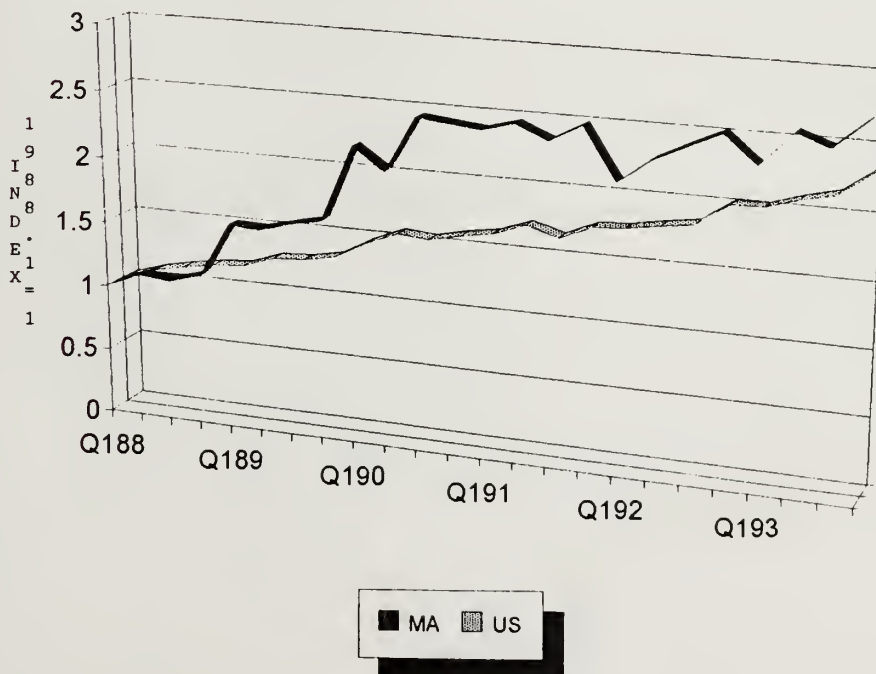




# PERFORMANCE: MA EXPORTS AND EMPLOYMENT ELECTRONIC, ELECTRIC EQUIP, EXCEPT COMPUTERS

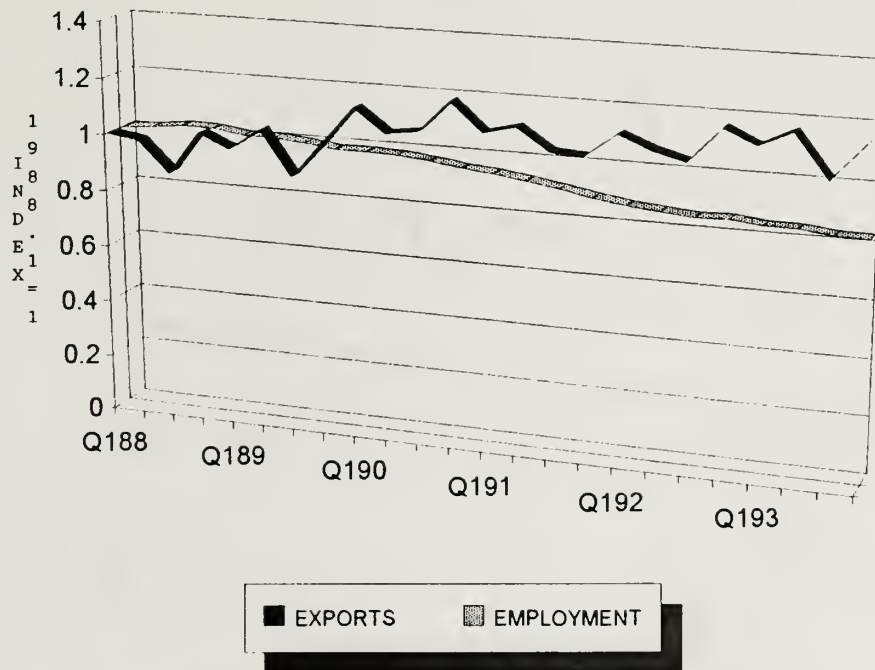


# PERFORMANCE: MA AND U.S. EXPORTS ELECTRONIC, ELECTRIC EQUIP, EXCEPT COMPUTERS

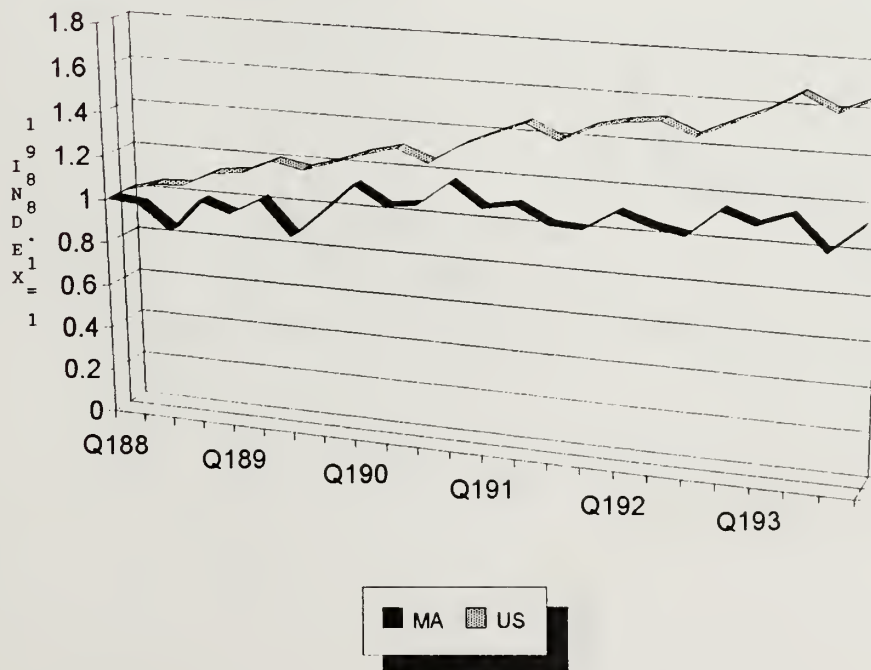




## PERFORMANCE: MA EXPORTS AND EMPLOYMENT INSTRUMENTS AND RELATED PRODUCTS



## PERFORMANCE: MA AND U.S. EXPORTS INSTRUMENTS AND RELATED PRODUCTS



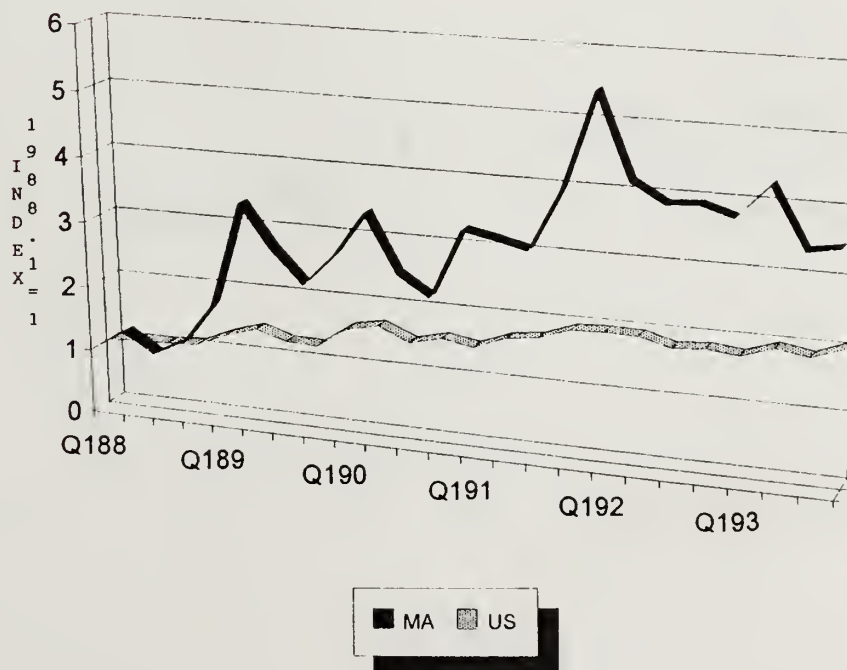




# PERFORMANCE: MA EXPORTS AND EMPLOYMENT FABRICATED METAL PRODUCTS

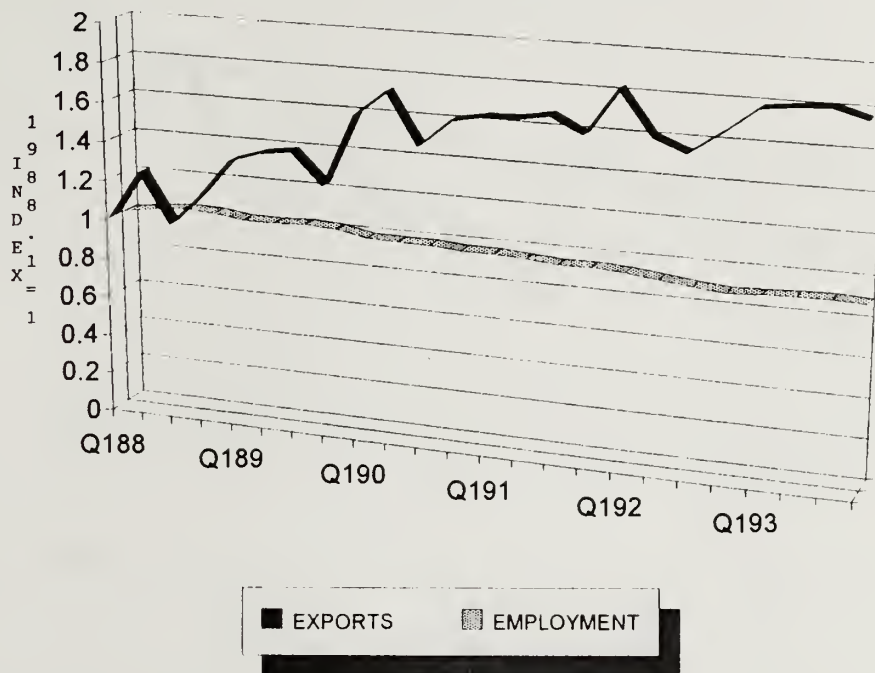


# PERFORMANCE: MA AND U.S. EXPORTS FABRICATED METAL PRODUCTS

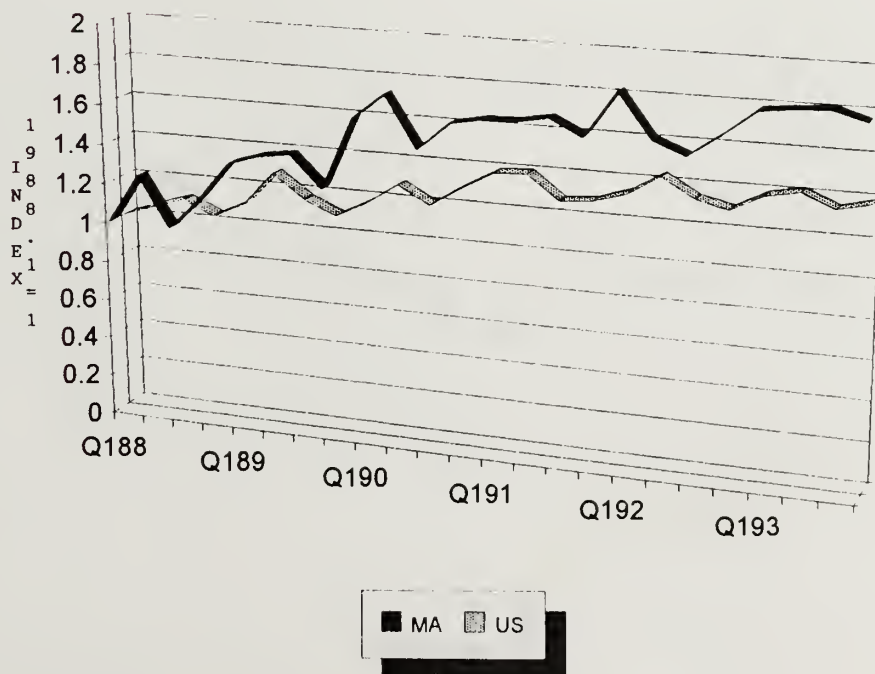




# PERFORMANCE: MA EXPORTS AND EMPLOYMENT CHEMICALS AND ALLIED PRODUCTS

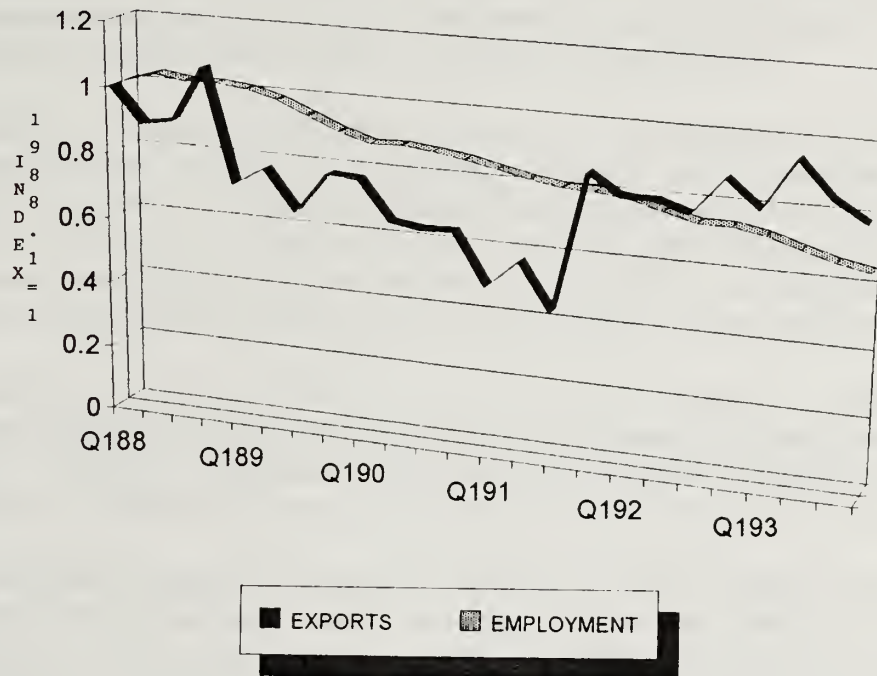


# PERFORMANCE: MA AND U.S. EXPORTS CHEMICALS AND ALLIED PRODUCTS

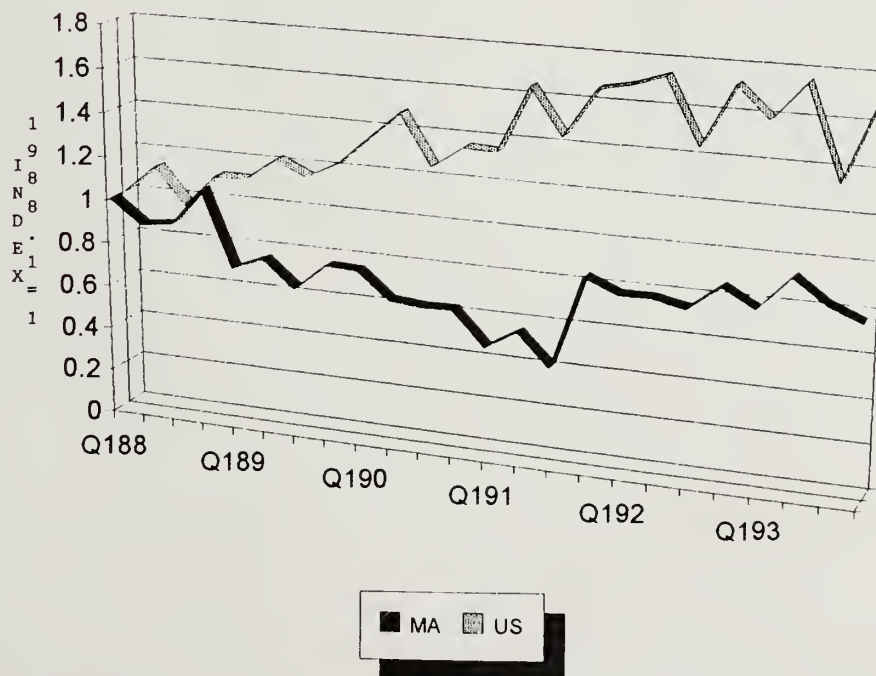




# PERFORMANCE: MA EXPORTS AND EMPLOYMENT TRANSPORTATION EQUIPMENT



# PERFORMANCE: MA AND U.S. EXPORTS TRANSPORTATION EQUIPMENT





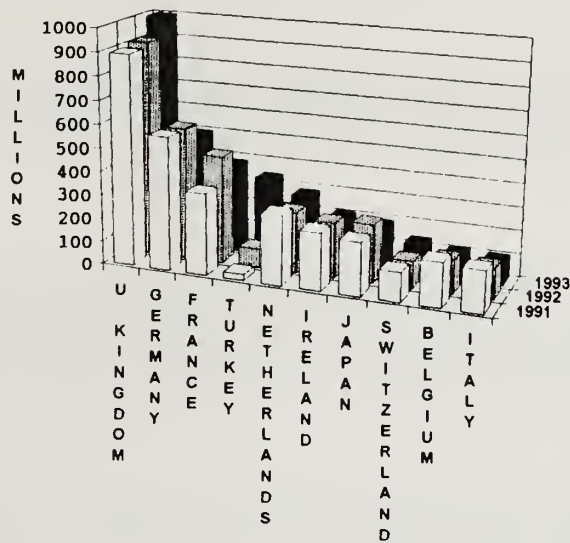


**BOSTON, MASSACHUSETTS  
CUSTOMS DISTRICT'S EXPORT PERFORMANCE**

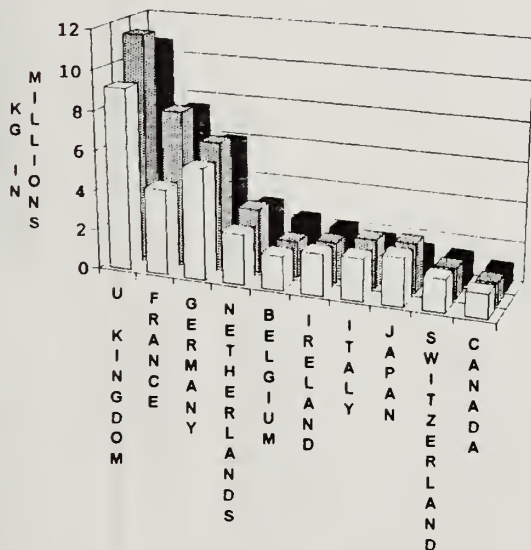
- \* The Boston Customs District comprises all of the sea and air ports in Massachusetts and Connecticut. Shipments out of the District may originate anywhere in the United States, not just in New England.
- \* The Boston Customs District's exports for 1993 totaled 4.2 billion dollars with an annual growth rate of -0.2.%. The top export destination was the United Kingdom with exports totaling \$994 million with an 8.8% growth rate. France and Germany had the largest declines while Turkey had the largest increase, expanding 253 million dollars, or 306%, to \$335 million in total exports. Most of the increase occurred in sales of new military helicopters.
- \* The Boston Customs District's exports by air weight for 1993 totaled 44 million kilograms with a -10.1% growth rate, down from last year's growth of 22.0%. The top importing market was the United Kingdom with exports totaling 11 million kilograms and declining at a rate of 6.6% for 1993.
- \* The Boston Customs District's exports by 1993 vessel weight (which includes containerized vessel weight) totaled 989 million kilograms, a significant 16.3% increase in vessel weight over 1992. The top export destination for 1993 was the Republic of Korea with exports totaling 249 million kilograms and a significant growth rate of 129%.



**BOSTON CUSTOMS DISTRICT EXPORTS  
TOP TEN MARKETS: RANKED BY 1993 TOTAL DOLLAR VALUE**

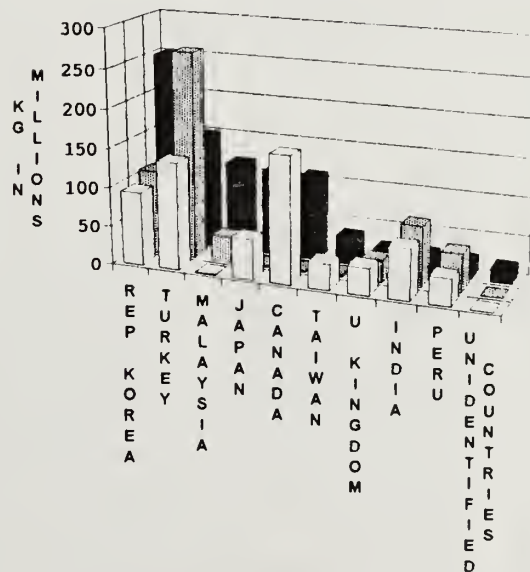


**BOSTON CUSTOMS DISTRICT EXPORTS  
TOP TEN MARKETS:  
RANKED BY 1993 AIR WEIGHT**



□ 1991    ▨ 1992    ■ 1993

**BOSTON CUSTOMS DISTRICT EXPORTS  
TOP TEN MARKETS:  
RANKED BY 1993 VESSEL WEIGHT**



□ 1991    ▨ 1992    ■ 1993





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO CANADA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	2,609,498,721	2,580,178,363	2,806,040,914	-1.12	8.75
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	1,007,495,691	934,939,671	913,891,404	-7.20	-2.25
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	415,470,406	428,234,914	507,403,459	3.07	18.49
TRANSPORTATION EQUIPMENT	149,288,320	178,824,153	187,827,648	19.78	5.03
INSTRUMENTS AND RELATED PRODUCTS	211,561,516	167,186,434	170,396,238	-20.98	1.92
FABRICATED METAL PRODUCTS	107,132,333	115,158,118	149,226,256	7.49	29.58
CHEMICALS AND ALLIED PRODUCTS	121,101,737	112,495,099	134,873,198	-7.11	-9.89
PAPER AND ALLIED PRODUCTS	94,961,188	109,157,287	107,166,601	14.95	-1.82
RUBBER AND MISC. PLASTICS PRODUCTS	57,604,320	66,873,625	84,894,083	16.09	26.95
TEXTILE MILL PRODUCTS	51,022,109	70,452,070	68,259,163	38.08	-3.11
MISC. MANUFACTURING INDUSTRIES	48,024,934	49,136,590	58,310,704	2.31	18.67
PRIMARY METAL INDUSTRIES	45,778,533	47,138,564	51,175,139	2.97	8.56
FISHING, HUNTING, AND TRAPPING	66,239,682	48,004,437	47,579,308	-27.53	-0.89
CANADIAN, NON-CANADIAN GOODS RETND TO CAN	32,157,278	42,766,550	41,020,061	32.99	-4.08
AGRICULTURAL PRODUCTION-CROPS	22,402,832	27,299,154	39,599,253	21.86	45.06
FOOD AND KINDRED PRODUCTS	38,224,351	38,611,569	36,675,637	1.01	-5.01
APPAREL AND OTHER TEXTILE PRODUCTS	7,753,503	21,919,170	36,359,049	182.70	65.88
PRINTING AND PUBLISHING	41,988,901	34,848,528	34,815,015	-17.01	-0.10
SCRAP AND WASTE	27,590,426	21,178,214	30,461,814	-23.24	43.84
PETROLEUM AND COAL PRODUCTS	1,346,123	5,683,338	28,746,278	322.20	405.80
LEATHER AND LEATHER PRODUCTS	18,413,498	21,842,855	24,488,149	18.62	12.11
STONE, CLAY, AND GLASS PRODUCTS	16,720,352	16,691,353	22,565,363	-0.17	35.19
LUMBER AND WOOD PRODUCTS	5,314,081	5,095,213	7,686,249	-4.12	50.85
FURNITURE AND FIXTURES	5,718,113	6,443,445	7,059,863	12.68	9.57
USED OR SECOND-HAND MERCHANDISE	912,817	986,588	6,357,596	8.08	544.40
SPECIAL CLASSIFICATION PROVISIONS, NSPF	10,372,417	5,086,339	5,113,684	-50.96	0.54
AGRICULTURAL PRODUCTION-LIVESTOCK	2,566,459	1,746,664	1,659,689	-31.94	-4.98
FORESTRY	1,175,192	1,479,510	1,359,891	25.90	-8.09
NONMETALLIC MINERALS, EXCEPT FUELS	961,067	853,369	822,055	-11.21	-3.67
METAL MINING	0	8,957	218,218	0.00	2336.28
TOBACCO MANUFACTURES	0	0	15,265	0.00	0.00
BITUMINOUS COAL & LIGNITE MINING	0	4,513	8,620	0.00	91.00
OIL AND GAS EXTRACTION	200,542	32,072	5,964	-84.01	-81.40





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO JAPAN BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	1,400,633,141	1,111,765,366	1,146,335,414	-20.62	3.11
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	495,297,631	345,157,904	311,620,286	-30.31	-9.72
INSTRUMENTS AND RELATED PRODUCTS	325,915,489	267,744,519	257,795,004	-17.85	-3.72
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	280,785,271	210,132,733	255,842,187	-25.16	21.75
FABRICATED METAL PRODUCTS	52,515,158	54,441,011	73,989,288	3.67	35.91
CHEMICALS AND ALLIED PRODUCTS	52,003,844	53,203,725	54,017,696	2.31	1.53
FISHING, HUNTING, AND TRAPPING	29,854,976	35,193,553	49,595,636	17.88	40.92
MISC. MANUFACTURING INDUSTRIES	22,643,535	23,161,886	25,396,190	2.29	9.65
RUBBER AND MISC. PLASTICS PRODUCTS	10,109,762	12,607,622	16,432,446	24.71	30.34
PRIMARY METAL INDUSTRIES	34,924,009	31,727,647	15,341,629	-9.15	-51.65
SCRAP AND WASTE	14,451,845	1,880,278	12,998,464	-86.99	591.31
APPAREL AND OTHER TEXTILE PRODUCTS	5,161,557	5,617,462	9,676,446	8.83	72.26
TRANSPORTATION EQUIPMENT	11,891,352	11,673,979	9,032,590	-1.83	-22.63
PAPER AND ALLIED PRODUCTS	7,701,962	7,794,698	8,886,123	1.20	14.00
TEXTILE MILL PRODUCTS	6,770,404	5,501,779	8,288,185	-18.74	50.65
LEATHER AND LEATHER PRODUCTS	8,915,634	6,018,282	8,150,976	-32.50	35.44
STONE, CLAY, AND GLASS PRODUCTS	15,297,267	8,251,559	7,093,492	-46.06	-14.03
PRINTING AND PUBLISHING	7,364,528	5,261,947	6,468,355	-28.55	22.93
SPECIAL CLASSIFICATION PROVISIONS, NSPF	10,006,408	13,289,201	6,448,888	32.81	-51.47
NONMETALLIC MINERALS, EXCEPT FUELS	1,321,560	776,303	2,127,362	-41.26	174.04
FOOD AND KINDRED PRODUCTS	2,581,501	2,553,756	1,844,542	-1.07	-27.77
USED OR SECOND-HAND MERCHANDISE	1,482,740	3,549,298	1,645,329	139.37	-53.64
LUMBER AND WOOD PRODUCTS	1,172,323	3,409,894	1,537,563	190.87	-54.91
FURNITURE AND FIXTURES	1,766,667	2,233,243	1,449,253	26.41	-35.11
PETROLEUM AND COAL PRODUCTS	263,528	288,298	442,198	9.40	53.38
AGRICULTURAL PRODUCTION-CROPS	149,470	201,803	90,830	35.01	-54.99
AGRICULTURAL PRODUCTION-LIVESTOCK	38,790	3,328	76,456	-91.42	2197.36
METAL MINING	18,482	9,957	48,000	-46.13	382.07
FORESTRY	197,703	79,701	0	-59.69	-100.00
OIL AND GAS EXTRACTION	29,745	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO THE UNITED KINGDOM BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	1,113,835,149	1,101,932,853	1,048,214,369	-1.07	-4.87
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	413,637,216	381,917,369	303,602,749	-7.67	-20.51
INSTRUMENTS AND RELATED PRODUCTS	204,761,178	246,655,407	239,436,194	20.46	-2.93
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	225,190,073	177,506,600	201,254,332	-21.17	13.38
RUBBER AND MISC. PLASTICS PRODUCTS	12,221,990	12,789,004	45,696,579	4.64	257.31
CHEMICALS AND ALLIED PRODUCTS	38,023,896	37,375,204	38,430,355	-1.71	2.82
TRANSPORTATION EQUIPMENT	28,024,249	31,880,537	36,544,463	13.76	14.63
MISC. MANUFACTURING INDUSTRIES	21,836,940	22,878,975	27,669,081	4.77	20.94
FABRICATED METAL PRODUCTS	18,397,307	21,796,016	22,938,149	18.47	5.24
PRINTING AND PUBLISHING	29,690,900	38,189,844	21,101,763	28.62	-44.75
TEXTILE MILL PRODUCTS	21,295,765	24,285,768	17,963,871	14.04	-26.03
SPECIAL CLASSIFICATION PROVISIONS, NSPF	16,778,641	21,462,041	17,122,324	27.91	-20.22
SCRAP AND WASTE	7,671,297	3,197,019	16,346,808	-58.32	411.31
PRIMARY METAL INDUSTRIES	36,076,665	28,756,011	15,233,258	-20.29	-47.03
LEATHER AND LEATHER PRODUCTS	3,726,525	6,343,697	10,188,225	70.23	60.60
PAPER AND ALLIED PRODUCTS	8,487,688	10,709,597	9,178,688	26.18	-14.29
FISHING, HUNTING, AND TRAPPING	4,363,063	6,314,969	6,165,895	44.74	-2.36
APPAREL AND OTHER TEXTILE PRODUCTS	2,006,628	3,109,543	5,981,875	54.96	92.37
STONE, CLAY, AND GLASS PRODUCTS	3,688,011	5,009,942	4,360,645	35.84	-12.96
USED OR SECOND-HAND MERCHANDISE	6,831,359	12,231,359	2,079,684	79.05	-83.00
FOOD AND KINDRED PRODUCTS	856,549	1,085,781	1,815,763	26.76	67.23
FURNITURE AND FIXTURES	1,657,839	1,745,178	1,530,334	5.27	-12.31
AGRICULTURAL PRODUCTION-CROPS	1,844,079	2,438,250	1,379,604	32.22	-43.42
LUMBER AND WOOD PRODUCTS	2,819,557	1,493,766	1,189,688	-47.02	-20.36
NONMETALLIC MINERALS, EXCEPT FUELS	1,673,547	409,869	662,736	-75.51	61.69
AGRICULTURAL PRODUCTION-LIVESTOCK	2,129,649	2,174,935	172,357	2.13	-92.08
FORESTRY	77,112	92,355	93,683	19.77	1.44
PETROLEUM AND COAL PRODUCTS	64,210	3,121	38,824	-95.14	1143.96
METAL MINING	3,216	73,456	24,542	2184.08	-66.59
OIL AND GAS EXTRACTION	0	7,240	11,900	0.00	64.36





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO GERMANY BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	1,033,447,256	1,121,423,532	968,819,344	8.51	-13.61
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	293,153,224	291,236,639	259,109,207	-0.65	-11.03
FABRICATED METAL PRODUCTS	187,753,476	282,195,631	178,671,555	50.30	-36.69
INSTRUMENTS AND RELATED PRODUCTS	178,502,272	194,306,248	178,242,204	8.85	-8.27
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	197,674,709	146,694,860	125,015,301	-25.79	-14.78
CHEMICALS AND ALLIED PRODUCTS	50,194,047	62,346,076	47,858,920	24.21	-23.24
PRINTING AND PUBLISHING	9,420,948	15,121,700	42,970,232	60.51	184.16
TEXTILE MILL PRODUCTS	10,435,674	21,422,317	24,214,033	105.28	13.03
RUBBER AND MISC. PLASTICS PRODUCTS	9,079,700	12,641,173	20,352,208	39.22	61.00
PRIMARY METAL INDUSTRIES	22,185,889	21,212,169	20,113,554	-4.39	-5.18
TRANSPORTATION EQUIPMENT	9,262,749	18,542,672	12,156,986	100.19	-34.44
LEATHER AND LEATHER PRODUCTS	13,924,111	7,988,188	11,128,264	-42.63	39.31
MISC. MANUFACTURING INDUSTRIES	5,955,630	6,450,845	8,470,651	8.32	31.31
STONE, CLAY, AND GLASS PRODUCTS	6,369,017	6,132,288	7,160,373	-3.72	16.77
SPECIAL CLASSIFICATION PROVISIONS, NSPF	19,370,495	12,080,317	7,092,443	-37.64	-41.29
FISHING, HUNTING, AND TRAPPING	2,837,638	4,649,874	5,212,942	63.86	12.11
PAPER AND ALLIED PRODUCTS	3,702,120	4,332,682	4,522,414	17.03	4.38
SCRAP AND WASTE	5,472,753	3,576,909	4,289,065	-37.64	19.91
USED OR SECOND-HAND MERCHANDISE	1,641,300	3,071,547	2,435,989	87.14	-20.69
NONMETALLIC MINERALS, EXCEPT FUELS	297,052	872,466	2,221,631	193.71	154.64
FURNITURE AND FIXTURES	2,764,998	1,792,615	2,147,358	-35.17	19.79
APPAREL AND OTHER TEXTILE PRODUCTS	765,547	1,361,148	1,767,803	77.80	29.88
LUMBER AND WOOD PRODUCTS	1,051,829	1,126,658	1,498,625	7.11	33.02
FOOD AND KINDRED PRODUCTS	988,192	1,097,123	906,661	11.02	-17.36
FORESTRY	352,741	754,685	821,355	113.95	8.83
AGRICULTURAL PRODUCTION-CROPS	148,445	221,815	194,732	49.43	-12.21
AGRICULTURAL PRODUCTION-LIVESTOCK	123,185	34,954	125,661	-71.62	259.50
PETROLEUM AND COAL PRODUCTS	19,515	159,933	119,177	719.54	-25.48





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO THE NETHERLANDS BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	607,478,269	766,449,548	779,678,477	26.17	1.73
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	233,075,511	319,493,562	321,780,072	37.08	0.72
INSTRUMENTS AND RELATED PRODUCTS	182,359,602	231,295,195	208,625,719	26.83	-9.80
RUBBER AND MISC. PLASTICS PRODUCTS	7,132,189	13,596,202	89,082,964	90.63	555.20
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	115,324,412	104,120,439	67,922,581	-9.72	-34.77
CHEMICALS AND ALLIED PRODUCTS	7,470,670	12,006,588	15,843,411	60.72	31.96
PAPER AND ALLIED PRODUCTS	16,965,615	19,492,772	15,384,690	14.90	-21.07
FABRICATED METAL PRODUCTS	4,057,918	4,941,991	11,127,858	21.79	125.17
MISC. MANUFACTURING INDUSTRIES	7,750,828	12,375,416	8,292,955	59.67	-32.99
TRANSPORTATION EQUIPMENT	5,964,202	12,217,319	5,858,879	104.84	-52.04
PRINTING AND PUBLISHING	5,014,084	7,124,792	5,820,768	42.10	-18.30
TEXTILE MILL PRODUCTS	3,665,486	5,208,257	5,368,003	42.09	3.07
PRIMARY METAL INDUSTRIES	3,537,778	4,279,926	4,001,046	20.98	-6.52
SPECIAL CLASSIFICATION PROVISIONS, NSPF	6,038,631	2,695,183	3,301,348	-55.37	22.49
FISHING, HUNTING, AND TRAPPING	686,253	2,547,277	2,889,459	271.19	13.43
APPAREL AND OTHER TEXTILE PRODUCTS	621,505	1,079,059	2,704,838	73.62	150.67
FURNITURE AND FIXTURES	278,563	366,254	2,587,112	31.48	606.37
STONE, CLAY, AND GLASS PRODUCTS	2,474,637	3,222,773	2,466,630	30.23	-23.46
LEATHER AND LEATHER PRODUCTS	542,665	4,175,589	1,836,754	669.46	-56.01
SCRAP AND WASTE	2,379,977	2,094,035	1,824,408	-12.01	-12.88
USED OR SECOND-HAND MERCHANDISE	368,951	2,319,203	1,641,308	528.59	-29.23
LUMBER AND WOOD PRODUCTS	803,856	826,197	744,460	2.78	-9.80
FOOD AND KINDRED PRODUCTS	840,400	316,895	252,660	-62.29	-20.27
AGRICULTURAL PRODUCTION-CROPS	27,981	267,848	219,617	857.25	-18.01
NONMETALLIC MINERALS, EXCEPT FUELS	0	43,634	78,079	0.00	78.94
FORESTRY	13,914	25,143	16,572	80.70	-34.09
PETROLEUM AND COAL PRODUCTS	0	0	6,286	0.00	0.00
AGRICULTURAL PRODUCTION-LIVESTOCK	16,506	220,080	0	1233.33	-100.00
METAL MINING	66,135	97,919	0	48.06	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO FRANCE BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	495,486,691	607,057,834	525,442,528	22.52	-13.44
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	191,947,240	265,530,703	199,130,804	38.34	-25.01
INSTRUMENTS AND RELATED PRODUCTS	102,577,611	99,979,783	106,850,435	-2.53	6.87
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	76,135,485	75,139,468	78,218,737	-1.31	4.10
FISHING, HUNTING, AND TRAPPING	35,290,222	37,618,218	41,083,202	6.60	9.21
CHEMICALS AND ALLIED PRODUCTS	17,379,257	19,654,077	23,197,862	13.09	18.03
RUBBER AND MISC. PLASTICS PRODUCTS	7,184,440	9,606,237	13,048,063	33.71	35.83
TEXTILE MILL PRODUCTS	12,366,496	13,295,603	12,828,578	7.51	-3.51
PRINTING AND PUBLISHING	4,295,995	8,959,367	7,178,072	108.55	-19.88
LEATHER AND LEATHER PRODUCTS	3,277,776	2,553,728	5,501,078	-22.09	115.41
TRANSPORTATION EQUIPMENT	3,895,200	8,255,444	5,323,347	111.94	-35.52
SPECIAL CLASSIFICATION PROVISIONS, NSPF	3,191,727	6,383,915	5,233,676	100.01	-18.02
PRIMARY METAL INDUSTRIES	6,743,478	8,353,146	5,219,453	23.87	-37.52
FABRICATED METAL PRODUCTS	6,546,408	19,258,489	4,913,426	194.18	-74.49
MISC. MANUFACTURING INDUSTRIES	3,485,440	5,046,950	3,989,982	44.80	-20.94
STONE, CLAY, AND GLASS PRODUCTS	5,155,588	14,249,305	3,106,839	176.39	-78.20
FOOD AND KINDRED PRODUCTS	6,278,347	5,847,857	2,747,092	-6.86	-53.02
USED OR SECOND-HAND MERCHANDISE	1,951,836	1,500,773	2,630,735	-23.11	75.29
PAPER AND ALLIED PRODUCTS	2,349,057	2,138,700	2,531,522	-8.95	18.37
APPAREL AND OTHER TEXTILE PRODUCTS	919,940	474,256	1,036,928	-48.45	118.64
NONMETALLIC MINERALS, EXCEPT FUELS	646,485	903,762	586,523	39.80	-35.10
LUMBER AND WOOD PRODUCTS	1,197,524	575,265	340,375	-51.96	-40.83
FURNITURE AND FIXTURES	168,712	483,765	289,733	186.74	-40.11
AGRICULTURAL PRODUCTION-LIVESTOCK	23,207	81,639	197,927	251.79	142.44
FORESTRY	219,942	199,035	108,890	-9.51	-45.29
AGRICULTURAL PRODUCTION-CROPS	6,864	69,257	78,505	908.99	13.35
SCRAP AND WASTE	2,234,507	899,092	46,516	-59.76	-94.83
METAL MINING	0	0	16,176	0.00	0.00
OIL AND GAS EXTRACTION	6,012	0	8,052	-100.00	0.00
PETROLEUM AND COAL PRODUCTS	11,895	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO HONG KONG BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	241,174,788	304,491,049	400,082,464	26.25	31.39
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	98,516,708	117,047,140	138,987,577	18.81	18.74
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	48,805,903	58,863,765	68,428,015	20.61	16.25
PRIMARY METAL INDUSTRIES	3,756,213	6,187,431	41,473,330	64.73	570.28
INSTRUMENTS AND RELATED PRODUCTS	17,513,363	23,586,505	30,639,155	34.68	29.90
TEXTILE MILL PRODUCTS	12,648,699	15,884,756	24,694,932	25.58	55.46
PAPER AND ALLIED PRODUCTS	4,787,597	12,469,563	17,547,040	160.46	40.72
MISC. MANUFACTURING INDUSTRIES	6,414,644	11,148,462	12,950,260	73.80	16.16
CHEMICALS AND ALLIED PRODUCTS	14,836,714	14,109,037	11,820,684	-4.90	-16.22
RUBBER AND MISC. PLASTICS PRODUCTS	10,182,837	9,169,572	11,210,886	-9.95	22.26
FABRICATED METAL PRODUCTS	3,925,817	7,599,835	11,143,311	93.59	46.63
LEATHER AND LEATHER PRODUCTS	6,009,053	10,931,460	9,408,801	81.92	-13.93
SCRAP AND WASTE	2,965,913	2,969,114	6,406,948	0.11	115.79
TRANSPORTATION EQUIPMENT	981,369	5,252,203	6,384,332	435.19	21.56
APPAREL AND OTHER TEXTILE PRODUCTS	474,112	892,552	1,931,541	88.26	116.41
PRINTING AND PUBLISHING	2,187,337	1,247,527	1,526,347	-42.97	22.35
FISHING, HUNTING, AND TRAPPING	223,274	662,572	1,460,557	196.75	120.44
FOOD AND KINDRED PRODUCTS	205,614	143,767	989,481	-30.08	588.25
FORESTRY	600,726	908,955	967,337	51.31	6.42
STONE, CLAY, AND GLASS PRODUCTS	416,946	877,851	704,397	110.54	-19.76
SPECIAL CLASSIFICATION PROVISIONS, NSPF	644,954	905,671	674,448	40.42	-25.53
AGRICULTURAL PRODUCTION-LIVESTOCK	2,809,139	473,404	286,138	-83.15	-39.56
AGRICULTURAL PRODUCTION-CROPS	16,668	9,818	124,036	-41.10	1163.35
LUMBER AND WOOD PRODUCTS	371,578	85,955	116,644	-76.87	35.70
USED OR SECOND-HAND MERCHANDISE	1,657,687	2,995,192	99,298	80.69	-96.68
FURNITURE AND FIXTURES	145,068	46,160	57,520	-68.18	24.61
PETROLEUM AND COAL PRODUCTS	52,906	22,782	46,221	-56.94	102.88
OIL AND GAS EXTRACTION	15,480	0	3,228	-100.00	0.00
NONMETALLIC MINERALS, EXCEPT FUELS	8,469	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO THE REPUBLIC OF KOREA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	415,450,624	405,321,550	345,144,141	-2.44	-14.85
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	152,961,249	102,734,728	85,094,680	-32.84	-17.17
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	47,913,905	58,701,548	67,018,952	22.51	14.17
INSTRUMENTS AND RELATED PRODUCTS	71,984,523	52,404,879	54,519,131	-27.20	4.03
TRANSPORTATION EQUIPMENT	17,173,024	68,321,817	41,041,807	297.84	-39.93
SCRAP AND WASTE	10,809,583	13,962,997	23,310,712	29.17	66.95
CHEMICALS AND ALLIED PRODUCTS	12,507,798	13,541,657	16,517,029	8.27	21.97
RUBBER AND MISC. PLASTICS PRODUCTS	18,255,607	18,527,107	12,299,504	1.49	-33.61
FABRICATED METAL PRODUCTS	50,263,089	42,441,182	9,892,619	-15.56	-76.69
PRIMARY METAL INDUSTRIES	1,977,624	6,301,427	6,548,415	218.64	3.92
FISHING, HUNTING, AND TRAPPING	180,587	97,003	5,872,780	-46.28	5954.23
LEATHER AND LEATHER PRODUCTS	3,462,279	6,023,325	5,549,419	73.97	-7.87
PAPER AND ALLIED PRODUCTS	4,172,290	7,045,251	5,491,418	68.86	-22.06
STONE, CLAY, AND GLASS PRODUCTS	2,003,941	2,195,076	2,750,010	9.54	25.28
MISC. MANUFACTURING INDUSTRIES	3,045,463	2,614,779	2,467,647	-14.14	-5.63
TEXTILE MILL PRODUCTS	3,793,600	2,341,524	2,424,928	-38.28	3.56
FOOD AND KINDRED PRODUCTS	9,291,422	4,033,169	1,592,538	-56.59	-60.51
PRINTING AND PUBLISHING	682,999	894,467	1,106,434	30.96	23.70
SPECIAL CLASSIFICATION PROVISIONS, NSPF	650,700	404,121	581,088	-37.89	43.79
PETROLEUM AND COAL PRODUCTS	3,791,988	1,719,458	531,906	-54.66	-69.07
LUMBER AND WOOD PRODUCTS	250,673	81,757	227,086	-67.38	177.76
AGRICULTURAL PRODUCTION-LIVESTOCK	28,950	145,902	91,442	403.98	-37.33
NONMETALLIC MINERALS, EXCEPT FUELS	85,307	14,754	82,318	-82.70	457.94
USED OR SECOND-HAND MERCHANDISE	10,891	41,050	61,091	276.92	48.82
AGRICULTURAL PRODUCTION-CROPS	32,754	78,790	26,166	140.55	-66.79
FURNITURE AND FIXTURES	48,175	29,919	18,827	-37.90	-37.07
APPAREL AND OTHER TEXTILE PRODUCTS	28,774	603,823	14,594	1998.50	-97.58
OIL AND GAS EXTRACTION	43,429	20,040	11,600	-53.86	-42.12





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO SINGAPORE BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	272,704,876	268,633,122	327,589,812	-1.49	21.95
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	71,661,323	95,288,809	139,772,315	32.97	46.68
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	118,662,897	81,818,684	89,433,548	-31.05	9.31
INSTRUMENTS AND RELATED PRODUCTS	31,414,640	39,784,064	51,029,854	26.64	28.27
FABRICATED METAL PRODUCTS	12,986,437	12,304,791	8,545,368	-5.25	-30.55
CHEMICALS AND ALLIED PRODUCTS	9,266,537	11,496,765	7,456,801	24.07	-35.14
MISC. MANUFACTURING INDUSTRIES	3,465,144	4,781,125	6,141,627	37.98	28.46
PAPER AND ALLIED PRODUCTS	4,473,098	6,430,117	4,894,076	43.75	-23.89
RUBBER AND MISC. PLASTICS PRODUCTS	5,089,497	3,754,617	3,594,163	-26.23	-4.27
PRIMARY METAL INDUSTRIES	4,733,205	1,606,292	3,081,648	-66.06	91.85
TEXTILE MILL PRODUCTS	2,037,295	2,817,989	2,558,233	38.32	-9.22
SPECIAL CLASSIFICATION PROVISIONS, NSPF	1,735,727	1,516,743	2,305,516	-12.62	52.00
PRINTING AND PUBLISHING	1,215,129	1,368,310	2,041,450	12.61	49.19
LEATHER AND LEATHER PRODUCTS	1,976,378	1,398,530	1,786,971	-29.24	27.77
TRANSPORTATION EQUIPMENT	1,707,087	1,778,753	1,538,578	4.20	-13.50
STONE, CLAY, AND GLASS PRODUCTS	561,191	722,928	1,158,776	28.82	60.29
APPAREL AND OTHER TEXTILE PRODUCTS	366,212	513,617	703,730	40.25	37.01
SCRAP AND WASTE	680,773	163,230	380,614	-76.02	133.18
FORESTRY	220,144	540,280	377,804	145.42	-30.07
USED OR SECOND-HAND MERCHANDISE	11,801	64,000	286,449	442.33	347.58
LUMBER AND WOOD PRODUCTS	127,062	172,429	280,931	35.70	62.93
FOOD AND KINDRED PRODUCTS	4,055	158,512	111,406	3809.05	-29.72
FISHING, HUNTING, AND TRAPPING	4,625	0	55,016	-100.00	0.00
FURNITURE AND FIXTURES	88,981	42,690	29,291	-52.02	-31.39
AGRICULTURAL PRODUCTION-LIVESTOCK	0	0	9,608	0.00	0.00
AGRICULTURAL PRODUCTION-CROPS	0	32,584	8,208	0.00	-74.81
PETROLEUM AND COAL PRODUCTS	204,242	77,263	7,831	-62.17	-89.86
NONMETALLIC MINERALS, EXCEPT FUELS	7,216	0	0	-100.00	0.00
OIL AND GAS EXTRACTION	4,180	0	0	-100.00	0.00





# APPENDIX A

## MASSACHUSETTS EXPORTS TO IRELAND BY INDUSTRY SORTED BY 1993, TOTAL DOLLAR VALUE

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	289,321,113	324,964,132	310,865,978	12.32	-4.34
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	157,423,478	177,067,044	176,917,010	12.48	-0.08
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	77,193,743	78,983,943	71,847,688	2.32	-9.08
INSTRUMENTS AND RELATED PRODUCTS	20,422,808	28,488,500	35,576,624	39.49	24.88
PRINTING AND PUBLISHING	7,911,316	10,323,276	8,963,779	30.49	-13.17
CHEMICALS AND ALLIED PRODUCTS	4,662,195	3,634,142	4,156,529	-22.05	14.37
TEXTILE MILL PRODUCTS	4,383,914	3,275,549	2,561,678	-25.28	-21.79
RUBBER AND MISC. PLASTICS PRODUCTS	1,880,483	2,955,721	2,358,197	57.18	-20.22
PRIMARY METAL INDUSTRIES	3,244,886	2,319,457	2,029,500	-28.52	-12.50
TRANSPORTATION EQUIPMENT	3,407,376	6,103,088	1,306,477	79.11	-78.59
MISC. MANUFACTURING INDUSTRIES	1,932,466	1,155,380	1,180,502	-40.21	2.17
FABRICATED METAL PRODUCTS	2,943,851	3,569,027	841,357	21.24	-76.43
PAPER AND ALLIED PRODUCTS	704,543	1,177,478	719,499	67.13	-38.89
STONE, CLAY, AND GLASS PRODUCTS	449,540	1,555,769	543,136	246.08	-65.09
AGRICULTURAL PRODUCTION-CROPS	409,624	1,094,425	398,104	167.18	-63.62
LEATHER AND LEATHER PRODUCTS	698,747	703,890	317,772	0.74	-54.85
FURNITURE AND FIXTURES	255,830	1,139,228	249,164	345.31	-78.13
NONMETALLIC MINERALS, EXCEPT FUELS	132,064	97,219	160,642	-26.38	65.24
APPAREL AND OTHER TEXTILE PRODUCTS	101,972	29,993	135,629	-70.59	352.20
USED OR SECOND-HAND MERCHANDISE	50,588	378,858	135,470	648.91	-64.24
SPECIAL CLASSIFICATION PROVISIONS, NSPF	174,950	256,479	128,933	46.60	-49.73
FISHING, HUNTING, AND TRAPPING	268,760	215,431	92,392	-19.84	-57.11
FOOD AND KINDRED PRODUCTS	89,787	28,817	90,682	-67.91	214.68
PETROLEUM AND COAL PRODUCTS	64,853	76,260	70,029	17.59	-8.17
LUMBER AND WOOD PRODUCTS	267,319	178,155	64,895	-33.35	-63.57
AGRICULTURAL PRODUCTION-LIVESTOCK	4,210	18,812	20,290	346.84	7.86
SCRAP AND WASTE	215,868	87,435	0	-59.50	-100.00
OIL AND GAS EXTRACTION	0	50,756	0	0.00	-100.00
FORESTRY	25,942	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO AUSTRALIA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	338,676,685	322,661,999	309,050,482	-4.73	-4.22
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	210,267,354	179,892,431	167,183,594	-14.45	-7.06
INSTRUMENTS AND RELATED PRODUCTS	29,227,697	27,925,449	41,223,949	-4.46	47.62
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	47,586,894	56,513,224	39,005,669	18.76	-30.98
FABRICATED METAL PRODUCTS	8,873,346	13,087,719	13,100,224	47.49	0.10
CHEMICALS AND ALLIED PRODUCTS	5,724,650	6,822,395	8,672,261	19.18	27.11
PAPER AND ALLIED PRODUCTS	5,199,105	6,346,028	7,020,542	22.06	10.63
MISC. MANUFACTURING INDUSTRIES	5,488,257	5,268,020	5,607,146	-4.01	6.44
TEXTILE MILL PRODUCTS	5,509,162	4,824,365	5,430,242	-12.43	12.56
RUBBER AND MISC. PLASTICS PRODUCTS	4,174,855	5,636,478	4,665,268	35.01	-17.23
PRINTING AND PUBLISHING	4,793,310	2,697,060	3,220,410	-43.73	19.40
PRIMARY METAL INDUSTRIES	2,849,002	2,538,328	3,143,586	-10.90	23.84
APPAREL AND OTHER TEXTILE PRODUCTS	703,738	1,519,020	3,095,584	115.85	103.79
STONE, CLAY, AND GLASS PRODUCTS	1,117,610	1,814,939	1,819,882	62.39	0.27
SPECIAL CLASSIFICATION PROVISIONS, NSPF	1,929,494	3,039,075	1,613,193	57.51	-46.92
LEATHER AND LEATHER PRODUCTS	1,547,159	1,838,755	1,441,747	18.85	-21.59
TRANSPORTATION EQUIPMENT	1,782,307	1,716,694	1,355,298	-3.68	-21.05
FURNITURE AND FIXTURES	714,679	483,347	332,593	-32.37	-31.19
FISHING, HUNTING, AND TRAPPING	322,126	41,898	260,031	-86.99	520.63
NONMETALLIC MINERALS, EXCEPT FUELS	244,569	180,934	228,317	-26.02	26.19
FOOD AND KINDRED PRODUCTS	109,543	114,544	191,317	4.57	67.02
LUMBER AND WOOD PRODUCTS	55,819	90,065	158,770	61.35	76.28
SCRAP AND WASTE	104,474	0	102,328	-100.00	0.00
FORESTRY	120,138	220,664	67,515	83.68	-69.40
PETROLEUM AND COAL PRODUCTS	29,857	40,501	62,033	35.65	53.16
USED OR SECOND-HAND MERCHANDISE	198,641	6,589	38,386	-96.68	482.58
AGRICULTURAL PRODUCTION-CROPS	2,899	0	6,153	-100.00	0.00
OIL AND GAS EXTRACTION	0	3,477	4,444	0.00	27.81





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO TAIWAN BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	357,674,117	352,830,531	297,707,626	-1.35	-15.62
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	78,567,710	93,259,187	106,956,651	18.70	14.69
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	164,298,084	124,532,981	70,173,441	-24.20	-43.65
INSTRUMENTS AND RELATED PRODUCTS	37,146,449	29,613,720	42,010,724	-20.28	41.86
TRANSPORTATION EQUIPMENT	10,137,419	15,958,726	15,598,905	57.42	-2.25
FABRICATED METAL PRODUCTS	15,745,956	31,196,686	12,774,830	98.13	-59.05
PAPER AND ALLIED PRODUCTS	7,940,445	12,158,778	10,017,500	53.12	-17.61
CHEMICALS AND ALLIED PRODUCTS	10,485,314	9,092,810	8,708,470	-13.28	-4.23
RUBBER AND MISC. PLASTICS PRODUCTS	6,005,052	6,923,143	6,064,121	15.29	-12.41
TEXTILE MILL PRODUCTS	4,730,685	5,838,496	5,947,911	23.42	1.87
PRIMARY METAL INDUSTRIES	3,000,884	3,686,751	5,701,378	22.86	54.65
LEATHER AND LEATHER PRODUCTS	3,782,601	6,260,314	3,224,183	65.50	-48.50
SPECIAL CLASSIFICATION PROVISIONS, NSPF	4,664,815	3,315,328	2,518,564	-28.93	-24.03
PRINTING AND PUBLISHING	999,624	2,203,382	2,077,018	120.42	-5.74
MISC. MANUFACTURING INDUSTRIES	2,341,616	1,684,519	1,541,576	-28.06	-8.49
STONE, CLAY, AND GLASS PRODUCTS	2,994,260	1,825,074	1,095,346	-39.05	-39.98
FOOD AND KINDRED PRODUCTS	590,258	600,440	714,110	1.73	18.93
FURNITURE AND FIXTURES	218,767	62,655	636,856	-71.36	916.45
FORESTRY	110,665	15,230	536,142	-86.24	3420.30
FISHING, HUNTING, AND TRAPPING	223,543	999,548	523,977	347.14	-47.58
SCRAP AND WASTE	2,955,593	2,052,428	417,224	-30.56	-79.67
APPAREL AND OTHER TEXTILE PRODUCTS	190,497	791,739	286,605	315.62	-63.80
LUMBER AND WOOD PRODUCTS	351,228	335,635	121,751	-4.44	-63.73
PETROLEUM AND COAL PRODUCTS	146,999	81,744	42,343	-44.39	-48.20
USED OR SECOND-HAND MERCHANDISE	15,715	201,000	18,000	1179.03	-91.04
AGRICULTURAL PRODUCTION-CROPS	0	121,169	0	0.00	-100.00
NONMETALLIC MINERALS, EXCEPT FUELS	15,031	19,048	0	26.72	-100.00
AGRICULTURAL PRODUCTION-LIVESTOCK	14,907	0	0	-100.00	0.00





# APPENDIX A MASSACHUSETTS EXPORTS TO MEXICO BY INDUSTRY SORTED BY 1993, TOTAL DOLLAR VALUE

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	229,828,924	263,984,100	294,930,559	14.86	11.72
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	77,987,420	68,102,059	64,947,701	-12.68	-4.63
INSTRUMENTS AND RELATED PRODUCTS	28,574,281	37,181,534	47,647,438	30.12	28.15
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	33,701,266	33,067,018	30,491,234	-1.88	-7.79
CHEMICALS AND ALLIED PRODUCTS	17,613,909	25,523,809	28,063,137	44.91	9.95
TEXTILE MILL PRODUCTS	9,607,751	13,372,811	18,472,664	39.19	38.14
FABRICATED METAL PRODUCTS	6,326,289	9,849,078	17,178,648	55.68	74.42
RUBBER AND MISC. PLASTICS PRODUCTS	4,831,091	8,758,560	16,502,165	81.30	88.41
SPECIAL CLASSIFICATION PROVISIONS, NSPF	17,362,924	21,477,332	12,517,177	23.70	-41.72
FOOD AND KINDRED PRODUCTS	4,670,173	9,037,424	12,029,211	93.51	33.10
TRANSPORTATION EQUIPMENT	1,242,358	1,157,117	10,676,819	-6.86	822.71
PAPER AND ALLIED PRODUCTS	8,409,181	10,058,242	10,159,047	19.61	1.00
MISC. MANUFACTURING INDUSTRIES	3,402,399	4,474,641	7,511,924	31.51	67.88
APPAREL AND OTHER TEXTILE PRODUCTS	809,784	2,852,937	5,012,101	252.31	75.68
STONE, CLAY, AND GLASS PRODUCTS	4,469,656	4,391,863	2,913,156	-1.74	-33.67
LEATHER AND LEATHER PRODUCTS	835,712	5,057,487	2,557,263	505.17	-49.44
PRINTING AND PUBLISHING	1,576,674	3,055,618	2,460,763	93.80	-19.47
PRIMARY METAL INDUSTRIES	4,845,142	3,299,659	2,298,585	-31.90	-30.34
FURNITURE AND FIXTURES	337,197	2,208,933	2,166,169	555.09	-1.94
AGRICULTURAL PRODUCTION-CROPS	19,803	94,004	677,452	374.70	620.66
LUMBER AND WOOD PRODUCTS	56,022	222,610	235,603	297.36	5.84
FISHING, HUNTING, AND TRAPPING	48,658	18,765	114,233	-61.43	508.76
NONMETALLIC MINERALS, EXCEPT FUELS	293,296	325,295	106,070	10.91	-67.39
PETROLEUM AND COAL PRODUCTS	69,085	84,302	51,619	22.03	-38.77
USED OR SECOND-HAND MERCHANDISE	22,312	82,756	51,112	270.90	-38.24
FORESTRY	218,222	140,524	46,435	-35.61	-66.96
SCRAP AND WASTE	2,341,472	77,626	34,778	-96.68	-55.20
METAL MINING	9,007	9,011	8,055	0.04	-10.61
OIL AND GAS EXTRACTION	3,840	3,085	0	-19.66	-100.00
AGRICULTURAL PRODUCTION-LIVESTOCK	144,000	0	0	-100.00	0.00





# APPENDIX A MASSACHUSETTS EXPORTS TO ITALY BY INDUSTRY SORTED BY 1993, TOTAL DOLLAR VALUE

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	319,881,967	347,232,067	269,879,273	8.55	-22.28
INSTRUMENTS AND RELATED PRODUCTS	64,774,987	81,162,276	65,302,876	25.30	-19.54
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	95,388,444	92,617,053	58,667,441	-2.91	-36.66
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	44,038,350	40,541,337	36,842,573	-7.94	-9.12
FOOD AND KINDRED PRODUCTS	19,526,737	20,927,564	21,068,840	7.17	0.68
FISHING, HUNTING, AND TRAPPING	24,073,081	24,607,851	20,647,259	2.22	-16.09
CHEMICALS AND ALLIED PRODUCTS	7,999,117	13,335,473	10,612,235	66.71	-20.42
TEXTILE MILL PRODUCTS	16,794,414	18,986,911	8,699,585	13.05	-54.18
MISC. MANUFACTURING INDUSTRIES	6,230,430	8,460,603	8,354,518	35.79	-1.25
SCRAP AND WASTE	3,802,617	7,085,694	7,224,807	86.34	1.96
LEATHER AND LEATHER PRODUCTS	2,916,992	6,540,697	6,290,992	124.23	-3.82
PAPER AND ALLIED PRODUCTS	3,661,958	4,500,446	4,032,295	22.90	-10.40
FABRICATED METAL PRODUCTS	6,266,713	4,793,365	3,591,019	-23.51	-25.08
PRIMARY METAL INDUSTRIES	4,681,142	3,477,608	3,320,202	-25.71	-4.53
RUBBER AND MISC. PLASTICS PRODUCTS	3,267,746	3,471,610	2,799,622	6.24	-19.36
PRINTING AND PUBLISHING	3,574,294	3,317,254	2,613,368	-7.19	-21.22
TRANSPORTATION EQUIPMENT	4,546,986	4,426,921	2,025,002	-2.64	-54.26
STONE, CLAY, AND GLASS PRODUCTS	1,470,252	1,264,585	1,906,120	-13.99	50.73
SPECIAL CLASSIFICATION PROVISIONS, NSPF	2,790,969	3,791,831	1,840,759	35.86	-51.45
APPAREL AND OTHER TEXTILE PRODUCTS	992,225	772,978	1,004,252	-22.10	29.92
BITUMINOUS COAL & LIGNITE MINING	0	0	895,456	0.00	0.00
FORESTRY	2,026,902	2,099,545	731,339	3.58	-65.17
LUMBER AND WOOD PRODUCTS	233,828	120,215	642,815	-48.59	434.72
USED OR SECOND-HAND MERCHANDISE	428,368	120,450	385,171	-71.88	219.78
FURNITURE AND FIXTURES	64,897	156,526	129,725	141.19	-17.12
NONMETALLIC MINERALS, EXCEPT FUELS	68,409	345,132	99,149	404.51	-71.27
OIL AND GAS EXTRACTION	108,448	144,050	87,454	32.83	-39.29
PETROLEUM AND COAL PRODUCTS	147,934	148,552	59,725	0.42	-59.80
AGRICULTURAL PRODUCTION-LIVESTOCK	0	9,885	4,674	0.00	-52.72
AGRICULTURAL PRODUCTION-CROPS	5,727	5,655	0	-1.26	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO ISRAEL BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	158,491,243	160,872,942	191,229,588	1.50	18.87
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	76,675,217	71,939,453	82,776,042	-6.18	15.06
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	28,551,208	28,440,913	39,562,029	-0.39	39.10
INSTRUMENTS AND RELATED PRODUCTS	18,500,678	23,766,964	20,780,787	28.47	-12.56
TRANSPORTATION EQUIPMENT	16,326,125	8,299,556	15,088,474	-49.16	81.80
FABRICATED METAL PRODUCTS	4,806,516	9,913,778	10,699,015	106.26	7.92
CHEMICALS AND ALLIED PRODUCTS	2,612,615	4,061,077	6,507,585	55.44	60.24
PAPER AND ALLIED PRODUCTS	695,245	3,678,917	2,797,005	429.15	-23.97
PRIMARY METAL INDUSTRIES	2,589,773	2,501,228	2,511,490	-3.42	0.41
RUBBER AND MISC. PLASTICS PRODUCTS	781,511	1,602,531	2,421,405	105.06	51.10
MISC. MANUFACTURING INDUSTRIES	536,844	1,337,017	2,231,092	149.05	66.87
LEATHER AND LEATHER PRODUCTS	730,600	952,718	1,470,839	30.40	54.38
STONE, CLAY, AND GLASS PRODUCTS	1,000,209	942,545	1,132,908	-5.77	20.20
FORESTRY	387,120	517,040	793,147	33.56	53.40
SPECIAL CLASSIFICATION PROVISIONS, NSPF	1,538,740	822,230	777,138	-46.56	-5.48
TEXTILE MILL PRODUCTS	447,161	1,242,313	457,426	177.82	-63.18
PRINTING AND PUBLISHING	2,015,812	436,040	398,067	-78.37	-8.71
FOOD AND KINDRED PRODUCTS	0	164,057	247,378	0.00	50.79
SCRAP AND WASTE	41,000	21,832	174,378	-46.75	698.73
APPAREL AND OTHER TEXTILE PRODUCTS	39,167	16,101	146,519	-58.89	810.00
LUMBER AND WOOD PRODUCTS	26,073	67,769	120,363	159.92	77.61
USED OR SECOND-HAND MERCHANDISE	18,200	3,000	63,950	-83.52	2031.67
FURNITURE AND FIXTURES	67,991	125,109	57,883	84.01	-53.73
PETROLEUM AND COAL PRODUCTS	2,700	3,100	9,068	14.81	192.52
AGRICULTURAL PRODUCTION-LIVESTOCK	0	0	5,600	0.00	0.00
FISHING, HUNTING, AND TRAPPING	100,738	6,383	0	-93.66	-100.00
AGRICULTURAL PRODUCTION-CROPS	0	5,760	0	0.00	-100.00
NONMETALLIC MINERALS, EXCEPT FUELS	0	5,511	0	0.00	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO BELGIUM BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	267,874,369	244,250,681	187,752,622	-8.82	-23.13
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	115,695,229	107,607,940	66,248,698	-6.99	-38.44
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	27,471,117	21,430,615	25,729,343	-21.99	20.06
INSTRUMENTS AND RELATED PRODUCTS	16,299,009	25,361,766	21,824,048	55.60	-13.95
CHEMICALS AND ALLIED PRODUCTS	51,315,966	20,526,776	21,523,752	-60.00	4.86
FABRICATED METAL PRODUCTS	13,676,578	13,374,941	10,931,775	-2.21	-18.27
RUBBER AND MISC. PLASTICS PRODUCTS	13,594,268	15,819,221	6,607,011	16.37	-58.23
FISHING, HUNTING, AND TRAPPING	3,322,188	5,733,033	6,525,518	72.57	13.82
PAPER AND ALLIED PRODUCTS	2,358,780	5,499,341	5,440,306	133.14	-1.07
TEXTILE MILL PRODUCTS	554,796	2,154,056	4,875,173	288.26	126.33
SCRAP AND WASTE	5,622,300	7,344,020	3,841,901	30.62	-47.69
PRIMARY METAL INDUSTRIES	2,423,149	2,137,359	2,857,647	-11.79	33.70
MISC. MANUFACTURING INDUSTRIES	3,169,575	4,781,772	2,120,371	50.86	-55.66
PRINTING AND PUBLISHING	1,250,416	2,037,088	1,257,861	62.91	-38.25
SPECIAL CLASSIFICATION PROVISIONS, NSPF	1,472,678	1,298,782	1,190,376	-11.81	-8.35
LUMBER AND WOOD PRODUCTS	3,214,452	1,115,540	1,185,711	-65.30	6.29
FURNITURE AND FIXTURES	149,236	55,249	1,050,896	-62.98	1802.11
TRANSPORTATION EQUIPMENT	4,613,682	2,739,918	860,856	-40.61	-68.58
LEATHER AND LEATHER PRODUCTS	294,863	464,369	732,673	57.49	57.78
USED OR SECOND-HAND MERCHANDISE	69,900	75,389	687,671	7.85	812.16
FOOD AND KINDRED PRODUCTS	268,051	3,010,463	587,438	1023.09	-80.49
APPAREL AND OTHER TEXTILE PRODUCTS	241,852	726,040	483,457	200.20	-33.41
AGRICULTURAL PRODUCTION-CROPS	92,160	513,887	483,079	457.60	-6.00
STONE, CLAY, AND GLASS PRODUCTS	610,617	315,026	405,051	-48.41	28.58
FORESTRY	11,215	14,466	150,541	28.99	940.65
NONMETALLIC MINERALS, EXCEPT FUELS	3,738	0	139,401	-100.00	0.00
AGRICULTURAL PRODUCTION-LIVESTOCK	78,554	110,816	8,862	41.07	-92.00
OIL AND GAS EXTRACTION	0	0	3,206	0.00	0.00
PETROLEUM AND COAL PRODUCTS	0	2,808	0	0.00	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO SWITZERLAND BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	154,362,049	153,873,877	172,422,714	-0.32	12.05
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	41,792,170	38,463,939	40,647,156	-7.96	5.68
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	31,476,466	40,012,700	27,356,835	27.12	-31.63
SCRAP AND WASTE	0	215,230	26,536,850	0.00	12229.53
INSTRUMENTS AND RELATED PRODUCTS	26,155,194	33,740,176	25,109,555	29.00	-25.58
CHEMICALS AND ALLIED PRODUCTS	11,239,997	11,105,263	16,298,383	-1.20	46.76
PRIMARY METAL INDUSTRIES	10,743,494	1,913,479	7,903,357	-82.19	313.04
TRANSPORTATION EQUIPMENT	5,733,994	4,097,157	7,294,711	-28.55	78.04
PRINTING AND PUBLISHING	3,630,976	5,593,320	4,886,174	54.04	-12.64
RUBBER AND MISC. PLASTICS PRODUCTS	2,411,858	1,644,890	4,431,365	-31.80	169.40
MISC. MANUFACTURING INDUSTRIES	1,825,408	3,308,507	2,018,973	81.25	-38.98
SPECIAL CLASSIFICATION PROVISIONS, NSPF	9,579,331	5,731,641	2,012,686	-40.17	-64.88
FABRICATED METAL PRODUCTS	2,281,861	1,710,478	1,839,927	-25.04	7.57
FISHING, HUNTING, AND TRAPPING	1,219,426	1,487,728	1,242,311	22.00	-16.50
STONE, CLAY, AND GLASS PRODUCTS	1,957,520	1,248,830	992,993	-36.20	-20.49
FURNITURE AND FIXTURES	179,145	145,987	754,661	-18.51	416.94
USED OR SECOND-HAND MERCHANDISE	1,497,973	1,156,509	688,861	-22.80	-40.44
PAPER AND ALLIED PRODUCTS	428,669	637,046	581,850	48.61	-8.66
LEATHER AND LEATHER PRODUCTS	795,153	601,456	547,677	-24.36	-8.94
TEXTILE MILL PRODUCTS	716,951	247,519	511,470	-65.48	106.64
APPAREL AND OTHER TEXTILE PRODUCTS	226,855	177,052	281,021	-21.95	58.72
LUMBER AND WOOD PRODUCTS	3,524	0	280,588	-100.00	0.00
FOOD AND KINDRED PRODUCTS	312,385	375,198	175,236	20.11	-53.30
PETROLEUM AND COAL PRODUCTS	132,624	0	15,473	-100.00	0.00
FORESTRY	6,075	0	7,510	-100.00	0.00
AGRICULTURAL PRODUCTION-LIVESTOCK	0	208,047	7,091	0.00	-96.59
NONMETALLIC MINERALS, EXCEPT FUELS	0	51,725	0	0.00	-100.00
AGRICULTURAL PRODUCTION-CROPS	15,000	0	0	-100.00	0.00





# APPENDIX A MASSACHUSETTS EXPORTS TO SPAIN BY INDUSTRY SORTED BY 1993, TOTAL DOLLAR VALUE

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	129,151,134	120,457,133	131,581,081	-6.73	9.23
TRANSPORTATION EQUIPMENT	25,470,347	19,757,481	38,027,682	-22.43	92.47
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	38,011,873	25,675,002	28,508,289	-32.46	11.04
INSTRUMENTS AND RELATED PRODUCTS	23,822,048	25,120,439	19,701,816	5.45	-21.57
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	15,252,574	17,806,736	18,281,516	16.75	2.67
FISHING, HUNTING, AND TRAPPING	6,767,299	9,942,393	5,794,350	46.92	-41.72
CHEMICALS AND ALLIED PRODUCTS	1,703,523	2,222,600	3,611,396	30.47	62.49
SPECIAL CLASSIFICATION PROVISIONS, NSPF	2,049,375	2,754,726	2,675,177	34.42	-2.89
PRIMARY METAL INDUSTRIES	4,132,922	2,400,521	2,009,214	-41.92	-16.30
FOOD AND KINDRED PRODUCTS	292,731	965,316	1,636,138	229.76	69.49
MISC. MANUFACTURING INDUSTRIES	1,493,648	3,182,938	1,622,323	113.10	-49.03
PRINTING AND PUBLISHING	1,891,077	2,149,462	1,602,995	13.66	-25.42
LEATHER AND LEATHER PRODUCTS	903,173	1,175,947	1,599,191	30.20	35.99
FABRICATED METAL PRODUCTS	1,622,975	872,734	1,299,086	-46.23	48.85
APPAREL AND OTHER TEXTILE PRODUCTS	379,384	1,169,322	1,172,019	208.22	0.23
TEXTILE MILL PRODUCTS	706,308	836,925	1,072,510	18.49	28.15
RUBBER AND MISC. PLASTICS PRODUCTS	1,246,663	1,757,494	899,742	40.98	-48.41
STONE, CLAY, AND GLASS PRODUCTS	619,265	764,760	714,484	23.49	-6.57
FORESTRY	594,221	173,036	496,280	-70.88	186.81
PAPER AND ALLIED PRODUCTS	209,000	533,666	494,434	155.34	-7.35
SCRAP AND WASTE	1,068,701	272,309	162,257	-74.52	-40.41
USED OR SECOND-HAND MERCHANDISE	730,799	111,620	83,434	-84.73	-25.25
NONMETALLIC MINERALS, EXCEPT FUELS	17,435	35,759	72,100	105.10	101.63
LUMBER AND WOOD PRODUCTS	135,178	355,088	19,860	162.68	-94.41
FURNITURE AND FIXTURES	0	403,022	10,285	0.00	-97.45
PETROLEUM AND COAL PRODUCTS	4,599	5,207	8,423	13.22	61.76
AGRICULTURAL PRODUCTION-LIVESTOCK	23,475	12,630	6,080	-46.20	-51.86
AGRICULTURAL PRODUCTION-CROPS	2,541	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO CHINA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	81,162,084	92,247,637	123,336,747	13.66	33.70
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	47,934,509	47,286,727	62,566,932	-1.35	32.31
INSTRUMENTS AND RELATED PRODUCTS	16,243,914	17,535,902	26,904,084	7.95	53.42
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	8,133,457	14,686,482	16,455,974	80.57	12.05
FABRICATED METAL PRODUCTS	2,972,693	1,300,531	4,254,806	-56.25	227.16
TRANSPORTATION EQUIPMENT	282,981	980,481	2,296,545	246.48	134.23
PAPER AND ALLIED PRODUCTS	288,607	444,138	1,856,331	53.89	317.96
FOOD AND KINDRED PRODUCTS	223,426	0	1,831,395	-100.00	0.00
FISHING, HUNTING, AND TRAPPING	0	490,852	1,160,016	0.00	136.33
PRINTING AND PUBLISHING	169,733	854,919	1,120,054	403.68	31.01
TEXTILE MILL PRODUCTS	2,126,817	654,246	851,060	-69.24	30.08
STONE, CLAY, AND GLASS PRODUCTS	507,633	719,023	668,551	41.64	-7.02
CHEMICALS AND ALLIED PRODUCTS	653,634	597,378	584,102	-8.61	-2.22
RUBBER AND MISC. PLASTICS PRODUCTS	81,893	114,845	575,198	40.24	400.85
PRIMARY METAL INDUSTRIES	696,422	2,127,886	517,843	205.55	-75.66
LEATHER AND LEATHER PRODUCTS	284,706	211,698	473,368	-25.64	123.61
SCRAP AND WASTE	35,411	3,760,681	426,711	10520.09	-88.65
MISC. MANUFACTURING INDUSTRIES	329,520	197,120	417,833	-40.18	111.97
SPECIAL CLASSIFICATION PROVISIONS, NSPF	47,703	154,287	165,510	223.43	7.27
METAL MINING	0	0	63,707	0.00	0.00
NONMETALLIC MINERALS, EXCEPT FUELS	72,822	2,655	39,358	-96.35	1382.41
AGRICULTURAL PRODUCTION-LIVESTOCK	0	47,541	29,756	0.00	-37.41
FURNITURE AND FIXTURES	0	0	27,696	0.00	0.00
APPAREL AND OTHER TEXTILE PRODUCTS	17,077	4,320	25,495	-74.70	490.16
LUMBER AND WOOD PRODUCTS	6,108	0	21,782	-100.00	0.00
OIL AND GAS EXTRACTION	53,018	33,817	2,640	-36.22	-92.19
USED OR SECOND-HAND MERCHANDISE	0	42,108	0	0.00	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO BRAZIL BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	91,911,812	95,474,772	120,815,207	3.88	26.54
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	39,724,080	40,047,141	51,270,284	0.81	28.02
CHEMICALS AND ALLIED PRODUCTS	10,395,755	12,494,182	15,777,683	20.19	26.28
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	13,668,555	10,902,407	13,914,898	-20.24	27.63
INSTRUMENTS AND RELATED PRODUCTS	12,692,323	11,153,218	13,200,838	-12.13	18.36
FABRICATED METAL PRODUCTS	1,752,786	7,987,172	11,506,215	355.68	44.06
RUBBER AND MISC. PLASTICS PRODUCTS	2,503,323	4,053,885	4,553,567	61.94	12.33
MISC. MANUFACTURING INDUSTRIES	431,498	1,077,889	1,558,067	149.80	44.55
PRINTING AND PUBLISHING	648,776	730,080	1,527,178	12.53	109.18
TEXTILE MILL PRODUCTS	2,026,056	1,520,755	1,394,817	-24.94	-8.28
LEATHER AND LEATHER PRODUCTS	470,639	974,511	1,275,437	107.06	30.88
STONE, CLAY, AND GLASS PRODUCTS	554,293	715,441	1,166,259	29.07	63.01
FOOD AND KINDRED PRODUCTS	0	61,617	1,048,168	0.00	1601.10
PAPER AND ALLIED PRODUCTS	2,342,826	1,079,694	883,488	-53.91	-16.17
PRIMARY METAL INDUSTRIES	632,349	854,064	715,964	35.06	-16.17
NONMETALLIC MINERALS, EXCEPT FUELS	411,190	372,528	265,816	-9.40	-28.65
TRANSPORTATION EQUIPMENT	502,144	245,165	252,930	-51.18	3.17
APPAREL AND OTHER TEXTILE PRODUCTS	889,650	15,209	211,578	-98.29	1291.14
SPECIAL CLASSIFICATION PROVISIONS, NSPF	233,234	106,153	126,327	-54.49	19.00
FURNITURE AND FIXTURES	213,095	30,808	77,135	-85.54	150.37
USED OR SECOND-HAND MERCHANDISE	128,608	0	47,697	-100.00	0.00
SCRAP AND WASTE	1,582,074	778,818	20,042	-50.77	-97.43
AGRICULTURAL PRODUCTION-LIVESTOCK	91,138	250,375	11,779	174.72	-95.30
FORESTRY	2,760	13,829	9,040	401.05	-34.63
OIL AND GAS EXTRACTION	0	9,831	0	0.00	-100.00
PETROLEUM AND COAL PRODUCTS	14,660	0	0	-100.00	0.00



**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO PHILIPPINES BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	118,321,475	118,098,120	117,005,170	-0.19	-0.93
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	86,308,589	96,474,320	99,425,834	11.78	3.06
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	17,858,741	9,493,095	8,658,585	-46.84	-8.79
INSTRUMENTS AND RELATED PRODUCTS	1,839,188	2,136,796	1,268,897	16.18	-40.62
LEATHER AND LEATHER PRODUCTS	943,199	429,077	1,254,892	-54.51	192.46
RUBBER AND MISC. PLASTICS PRODUCTS	1,352,100	1,527,318	1,184,380	12.96	-22.45
TEXTILE MILL PRODUCTS	1,551,366	970,430	761,001	-37.45	-21.58
SPECIAL CLASSIFICATION PROVISIONS, NSPF	3,698,363	2,417,867	666,170	-34.62	-72.45
APPAREL AND OTHER TEXTILE PRODUCTS	1,057,463	1,502,661	654,969	42.10	-56.41
CHEMICALS AND ALLIED PRODUCTS	933,224	594,499	646,050	-36.30	8.67
MISC. MANUFACTURING INDUSTRIES	582,840	958,222	638,684	64.41	-33.35
PRIMARY METAL INDUSTRIES	93,375	21,438	632,346	-77.04	2849.65
FABRICATED METAL PRODUCTS	781,235	688,521	594,806	-11.87	-13.61
TRANSPORTATION EQUIPMENT	56,422	42,519	292,285	-24.64	587.42
PAPER AND ALLIED PRODUCTS	834,675	371,071	117,235	-55.54	-68.41
FOOD AND KINDRED PRODUCTS	79,736	70,045	58,419	-12.15	-16.60
PETROLEUM AND COAL PRODUCTS	148,243	15,973	49,753	-89.23	211.48
FISHING, HUNTING, AND TRAPPING	0	7,973	49,361	0.00	519.10
PRINTING AND PUBLISHING	18,535	63,506	41,540	242.63	-34.59
STONE, CLAY, AND GLASS PRODUCTS	142,362	302,789	9,963	112.69	-96.71
USED OR SECOND-HAND MERCHANDISE	0	10,000	0	0.00	-100.00
FURNITURE AND FIXTURES	28,813	0	0	-100.00	0.00
SCRAP AND WASTE	6,968	0	0	-100.00	0.00
NONMETALLIC MINERALS, EXCEPT FUELS	6,038	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO SWEDEN BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	101,432,417	100,172,378	101,596,894	-1.24	1.42
ELECTRONIC,ELECTRIC EQUIP,EXC COMPUTER	18,293,965	22,000,905	25,243,089	20.26	14.74
INDUSTRIAL MACHINERY,COMPUTER EQUIPMENT	31,797,037	23,792,838	22,518,320	-25.17	-5.36
INSTRUMENTS AND RELATED PRODUCTS	18,121,046	15,637,617	16,602,375	-13.70	6.17
TRANSPORTATION EQUIPMENT	11,694,623	13,870,774	14,243,312	18.61	2.69
CHEMICALS AND ALLIED PRODUCTS	2,200,507	3,855,637	6,113,982	75.22	58.57
PRIMARY METAL INDUSTRIES	1,950,754	4,481,692	2,648,928	129.74	-40.89
MISC. MANUFACTURING INDUSTRIES	2,379,772	2,979,606	2,416,332	25.21	-18.90
SPECIAL CLASSIFICATION PROVISIONS, NSPF	2,607,152	1,775,302	2,416,029	-31.91	36.09
PRINTING AND PUBLISHING	1,594,736	2,875,659	2,162,208	80.32	-24.81
FABRICATED METAL PRODUCTS	1,978,753	933,595	1,872,722	-52.82	100.59
RUBBER AND MISC. PLASTICS PRODUCTS	1,751,904	1,462,933	1,269,513	-16.49	-13.22
LEATHER AND LEATHER PRODUCTS	1,177,502	1,075,651	809,049	-8.65	-24.79
FISHING, HUNTING, AND TRAPPING	1,617,598	2,124,733	665,732	31.35	-68.67
PAPER AND ALLIED PRODUCTS	277,399	611,565	641,191	120.46	4.84
FOOD AND KINDRED PRODUCTS	210,213	356,203	503,424	69.45	41.33
STONE, CLAY, AND GLASS PRODUCTS	1,615,560	749,847	465,461	-53.59	-37.93
APPAREL AND OTHER TEXTILE PRODUCTS	655,771	305,130	387,284	-53.47	26.92
TEXTILE MILL PRODUCTS	963,214	918,725	343,853	-4.62	-62.57
LUMBER AND WOOD PRODUCTS	391,117	292,852	104,496	-25.12	-64.32
USED OR SECOND-HAND MERCHANDISE	15,000	12,000	100,409	-20.00	736.74
FURNITURE AND FIXTURES	104,009	34,862	49,618	-66.48	42.33
NONMETALLIC MINERALS, EXCEPT FUELS	12,145	0	16,942	-100.00	0.00
FORESTRY	0	5,142	2,625	0.00	-48.95
AGRICULTURAL PRODUCTION-CROPS	17,640	19,110	0	8.33	-100.00
SCRAP AND WASTE	5,000	0	0	-100.00	0.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO MALAYSIA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	58,186,163	56,679,921	74,603,090	-2.59	31.62
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	17,098,453	19,678,460	23,487,757	15.09	19.36
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	26,474,453	14,829,376	17,410,745	-43.99	17.41
SCRAP AND WASTE	147,657	3,422,801	11,164,934	2218.08	226.19
INSTRUMENTS AND RELATED PRODUCTS	6,235,846	8,225,313	10,503,051	31.90	27.69
CHEMICALS AND ALLIED PRODUCTS	1,845,560	1,611,664	1,863,005	-12.67	15.60
TRANSPORTATION EQUIPMENT	626,075	449,924	1,792,125	-28.14	298.32
STONE, CLAY, AND GLASS PRODUCTS	1,523,202	2,200,956	1,786,779	44.50	-18.82
FABRICATED METAL PRODUCTS	1,339,957	1,956,191	1,733,769	45.99	-11.37
PRIMARY METAL INDUSTRIES	1,062,262	1,903,788	1,362,953	79.22	-28.41
RUBBER AND MISC. PLASTICS PRODUCTS	758,497	1,097,460	981,866	44.69	-10.53
USED OR SECOND-HAND MERCHANDISE	0	0	790,243	0.00	0.00
LEATHER AND LEATHER PRODUCTS	72,453	116,350	471,314	60.59	305.08
LUMBER AND WOOD PRODUCTS	30,178	37,990	308,272	25.89	711.46
TEXTILE MILL PRODUCTS	318,309	50,519	153,987	-84.13	204.81
PAPER AND ALLIED PRODUCTS	52,102	120,252	136,702	130.80	13.68
PETROLEUM AND COAL PRODUCTS	228,201	253,856	130,768	11.24	-48.49
MISC. MANUFACTURING INDUSTRIES	85,279	270,967	124,528	217.74	-54.04
NONMETALLIC MINERALS, EXCEPT FUELS	94,610	91,242	117,928	-3.56	29.25
FORESTRY	27,051	55,812	91,878	106.32	64.62
PRINTING AND PUBLISHING	80,985	147,804	87,566	82.51	-40.76
SPECIAL CLASSIFICATION PROVISIONS, NSPF	32,800	20,843	54,625	-36.45	162.08
APPAREL AND OTHER TEXTILE PRODUCTS	21,175	0	26,212	-100.00	0.00
AGRICULTURAL PRODUCTION-CROPS	0	8,700	14,066	0.00	61.68
FOOD AND KINDRED PRODUCTS	5,727	90,158	4,307	1474.26	-95.22
FURNITURE AND FIXTURES	0	0	3,710	0.00	0.00
FISHING, HUNTING, AND TRAPPING	25,331	39,495	0	55.92	-100.00





**APPENDIX A**  
**MASSACHUSETTS EXPORTS TO SAUDI ARABIA BY INDUSTRY**  
**SORTED BY 1993, TOTAL DOLLAR VALUE**

INDUSTRY	1991	1992	1993	% INCR 91-92	% INCR 92-93
TOTAL ALL INDUSTRIES	58,233,364	70,257,395	72,315,526	20.65	2.93
INDUSTRIAL MACHINERY, COMPUTER EQUIPMENT	15,180,482	9,523,741	17,364,237	-37.26	82.33
TEXTILE MILL PRODUCTS	5,034,364	14,977,890	13,233,033	197.51	-11.65
INSTRUMENTS AND RELATED PRODUCTS	12,738,410	14,273,035	11,381,487	12.05	-20.26
ELECTRONIC, ELECTRIC EQUIP, EXC COMPUTER	5,309,855	5,599,512	5,649,485	5.46	0.89
CHEMICALS AND ALLIED PRODUCTS	1,943,553	2,647,869	5,229,362	36.24	97.49
FABRICATED METAL PRODUCTS	4,520,593	7,118,951	5,205,755	57.48	-26.87
FOOD AND KINDRED PRODUCTS	1,442,199	1,429,521	3,777,233	-0.88	164.23
TRANSPORTATION EQUIPMENT	1,222,025	1,448,712	3,390,186	18.55	134.01
PAPER AND ALLIED PRODUCTS	540,740	1,503,786	1,406,319	178.10	-6.48
FURNITURE AND FIXTURES	69,695	170,762	1,253,732	145.01	634.20
APPAREL AND OTHER TEXTILE PRODUCTS	145,255	577,873	943,792	297.83	63.32
STONE, CLAY, AND GLASS PRODUCTS	549,307	124,781	895,193	-77.28	617.41
RUBBER AND MISC. PLASTICS PRODUCTS	1,147,797	2,995,968	689,241	161.02	-76.99
PRINTING AND PUBLISHING	461,342	175,465	524,993	-61.97	199.20
LEATHER AND LEATHER PRODUCTS	348,990	367,616	523,364	5.34	42.37
MISC. MANUFACTURING INDUSTRIES	1,014,690	913,936	464,291	-9.93	-49.20
PRIMARY METAL INDUSTRIES	701,018	1,684,959	167,207	140.36	-90.08
FORESTRY	50,135	93,963	129,508	87.42	37.83
LUMBER AND WOOD PRODUCTS	471,601	107,640	31,810	-77.18	-70.45
FISHING, HUNTING, AND TRAPPING	59,621	3,200	21,593	-94.63	574.78
PETROLEUM AND COAL PRODUCTS	14,609	9,274	16,108	-36.52	73.69
USED OR SECOND-HAND MERCHANDISE	0	0	12,232	0.00	0.00
SPECIAL CLASSIFICATION PROVISIONS, NSPF	653,361	4,501,976	5,365	589.05	-99.88
AGRICULTURAL PRODUCTION-CROPS	0	6,965	0	0.00	-100.00
SCRAP AND WASTE	4,466,775	0	0	-100.00	0.00
OIL AND GAS EXTRACTION	146,947	0	0	-100.00	0.00





Top 10 Commodities exported out of Boston by weight:

Commodity	Short Tons
1 Logs, lumber, boards	40982
2 Paper	25193
3 Frozen fish	21034
4 Hides, skins	13680
5 Milk, eggs, dairy products	12754
6 Photo equipment	9424
7 Household goods	7236
8 Resins and acids	6300
9 Empty containers	5933
10 Braid, canvas, cloth	4523
total:	147059

Top 10 Countries by weight:

1 United Kingdom	30218
2 Netherlands	22329
3 Hong Kong	20045
4 Belgium	16613
5 Taiwan	14750
6 Italy	13524
7 Germany	13220
8 France	11333
9 Japan	9587
10 Poland	8024
total:	159643





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